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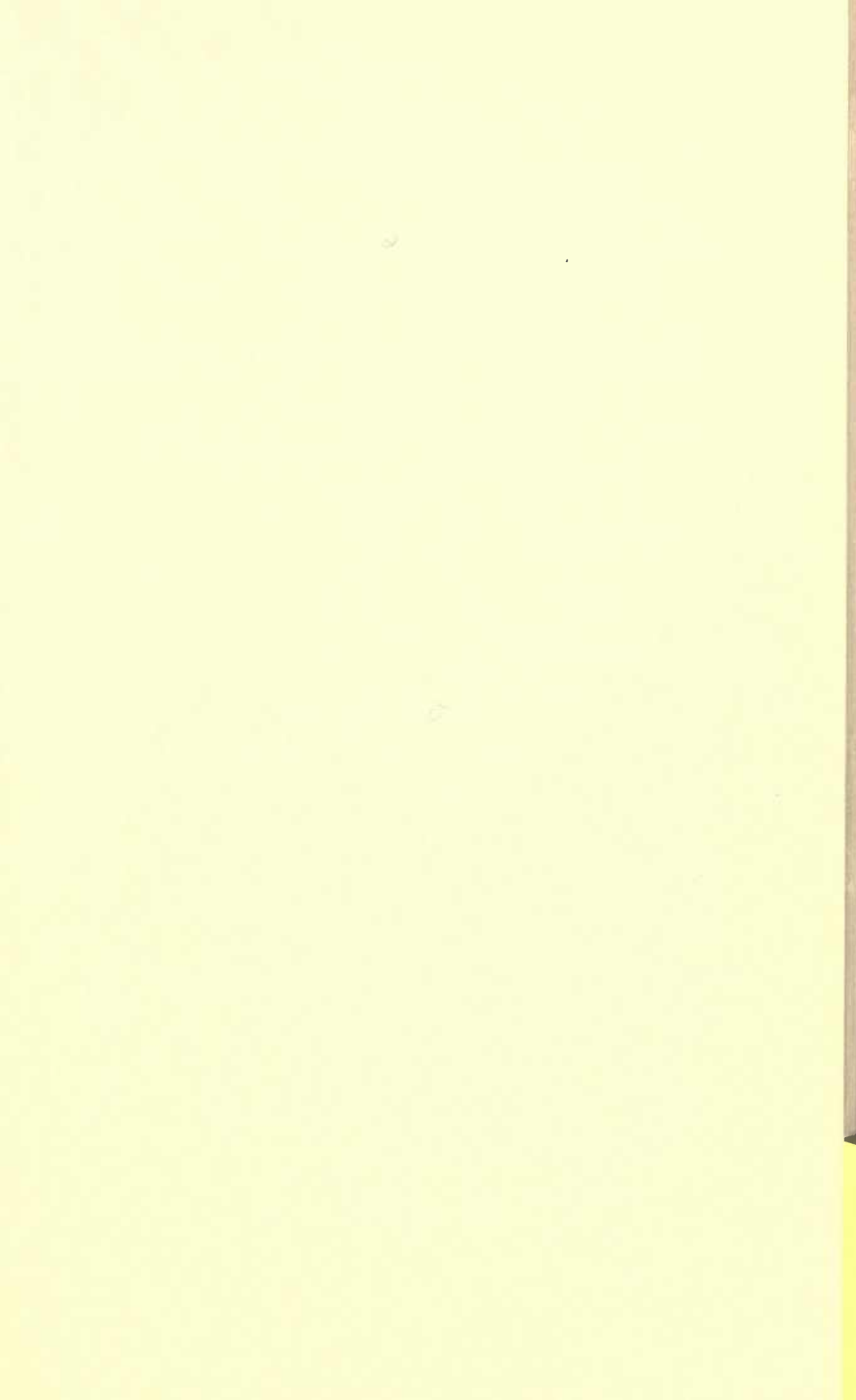
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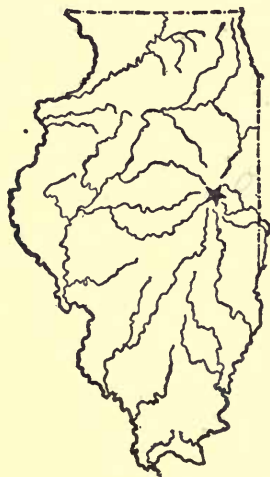


UNIVERSITY OF ILLINOIS Agricultural Experiment Station

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STUDIES OF THE COMPOSITION OF MILK

By O. R. OVERMAN, F. P. SANMANN, AND K. E. WRIGHT



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STUDIES OF THE COMPOSITION OF MILK

By O. R. OVERMAN, F. P. SANMANN, AND K. E. WRIGHT*

Many analyses of milk from various countries are reported in the literature of the composition of milk. In a large number of cases only milk fat and solids-not-fat have been determined and reported, but numerous complete analyses are given. Unfortunately a study of these data frequently fails to disclose the nature of the samples analyzed, whether from single milkings of individual cows, composite samples from several milkings of individual cows, or from the mixed milk from a herd or from several herds of cows. In many cases, also, no attempt is made to differentiate between samples from the milk of the different breeds of dairy cows. Also, it is often impossible to determine whether the samples analyzed were representative and were of known purity.

It is obvious that these various types of data are not comparable. The analysis of a single milking gives, of course, only the composition for that particular time and may or may not approximate the composition of any other milking of the same cow or of other cows of the same or of other breeds. Likewise, the analysis of a mixed milk gives an average composition for the milk produced by the herd or herds at that time, but does not necessarily show the composition of milk from the same source at other times or from other sources at any time.

Collier^{1*} studied the milk of different breeds of cows and published the following average results:

	No. of samples	T.S. %	Fat %	Casein %	Lactose %	Ash %	S-N-F %
Ayrshire.....	252	13.06	3.57	3.43	5.33	.698	9.35
Guernsey.....	112	14.60	5.12	3.61	5.11	.753	9.47
Holstein.....	132	12.39	3.46	3.39	4.84	.735	9.07
Jersey.....	238	15.40	5.61	3.91	5.15	.743	9.80

Sherman^{2*} in a study of the milk from a herd of about 600 registered and grade Jersey cows for a period of five years, gives the general average composition as:

Fat	S-N-F	Protein	Lactose	Ash	T.S.
%	%	%	%	%	%
5.42	9.22	3.66	4.87	.75	14.64

Haecker^{3*} in his investigations in milk production analyzed many milk samples and published a table showing average percentages of protein and carbohydrates corresponding to percentages of fat for each

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one-half percent interval from 2.5 to 7.0 percent. He made no attempt to differentiate between the milk produced by different breeds. The work was done primarily as an aid in the study of feeding standards.

Lythgoe^{4,5*} studied the composition of several hundred milk samples of known purity. The results were used in a study of methods for detecting adulteration of milk.

One of the most extensive investigations of milk composition is that of Tocher.^{6*} Analyses were made of 676 samples. All samples were taken from single milkings of individual cows and the attempt was made to take the samples in such manner as to represent the cow population of Scotland. In addition to the chemical analyses, extensive statistical studies of the analytical results were made.

The associates of L. A. Rogers^{7*} give these averages for milk composition:

	Fat %	Protein %	Lactose %	Ash %	T.S. %
Ayrshire.....	3.85	3.34	5.02	.69	12.90
Guernsey.....	4.98	3.84	4.98	.75	14.55
Holstein.....	3.45	3.15	4.65	.68	11.93
Jersey.....	5.14	3.80	5.04	.75	14.73

The purpose of the investigations reported herein was to make a more complete study of the composition of the milk of the commoner breeds of dairy cows and to determine certain statistical relations between the different components. At the same time a study was made of numerous samples of the milk of Guernsey-Holstein cross-bred cows.

OUTLINE OF EXPERIMENT

The milk samples which were analyzed in the course of these investigations were all obtained from individual cows in the purebred and experimental herds of the Department of Dairy Husbandry of the University of Illinois. The purebred herd consists of Ayrshire, Guernsey, Holstein, and Jersey cows;^a the experimental herd, of Guernsey-Holstein crosses.

Samples were taken from the milk of each cow at regular 5-week intervals thruout the lactation periods except in comparatively few instances when it became necessary, because of accident or for other reasons, to change the time interval elapsing between samples. Each sample represents all the milk produced by an individual cow during three days. The first sample from each lactation period was taken as soon after beginning to use the milk for food purposes as it was possible to fit the sample into the regular routine of the laboratory.

^aWhen the work on the milk of these four breeds was nearing completion, the Brown Swiss breed was added to the purebred herd. A study of the composition of the milk of this breed is now in progress.

Special Sampling Device.—All samples were taken by the milkers at the barns. A special sampling device, which was designed to take a proportional part of each milking, was used in the preparation of all samples. This sampler is shown in the accompanying photograph (Fig. 1). The construction^a and method of operation were as follows:

A 5-gallon ice-cream can of uniform diameter from top to bottom was fitted at the bottom with a three-way brass cock bearing a $1\frac{1}{4}$ -inch thin-walled brass tube which extended almost to the top of the can. The tube was supported parallel to the wall of the can by means of a metal strap soldered, near the top, to both the can and the tube. In operation, the cock was turned to close the outlet from the can, and the well-mixed complete milking of a cow was poured

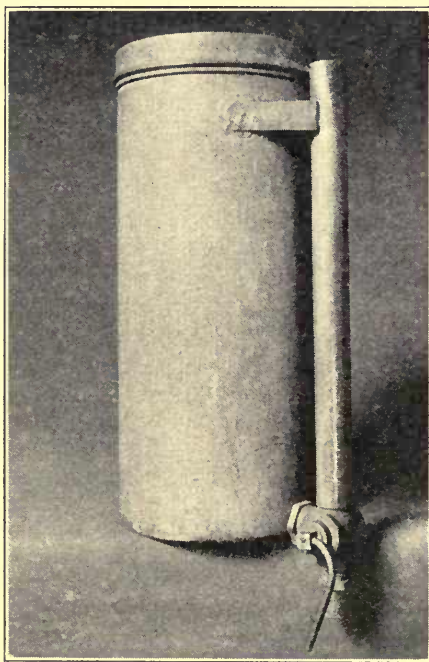


FIG. 1.—DEVICE WITH WHICH ALL SAMPLES WERE TAKEN

into the can. The cock was turned to allow the milk to flow into the tube, in which it quickly assumed the same level as in the can. The jar in which the sample was to be kept was placed under the nipple extending downward from the cock and the cock turned to allow the milk to flow from the tube into the sample jar. This adjustment of the cock closed the opening from the can to the tube so that only the milk in the tube was drawn into the sample jar. Such a sample was drawn into the same sample jar from each milking of the cow during the sampling period. Numerous preliminary tests of the sampler, using

^aThe sampling device was designed by Dr. W. L. Gaines, Chief in Milk Production at the University of Illinois.

measured quantities of water, showed that this method of sampling withdrew proportional parts of the contents of the can.

All samples were taken and kept in two-quart glass fruit jars fitted with glass lids and rubber rings, and were preserved with formaldehyde added previous to the beginning of sampling in the proportions recommended by Palmer.^{8*} After delivery to the laboratory all samples were kept under refrigeration until the analyses had been completed.

Determinations.—Direct determinations of specific gravity and of percentage of fat, total protein, ash, and total solids were made on all samples. The specific gravity was determined by the use of a chainomatic specific-gravity balance.

The percentage of fat was determined by the Roesse-Gottlieb method, using about 5 grams of the sample. Total nitrogen was found by the Official Kjeldahl method, using metallic mercury. The percentage of nitrogen multiplied by 6.38 is tabulated as the percentage of protein.

The percentage of ash was determined on a 10-gram sample to which 3 centimeters of strong nitric acid had been added. Except for the smaller quantities of sample and of nitric acid, the procedure of the Official method was followed. The ignition was made in an electric muffle furnace. The percentage of total solids was determined from a 2-gram sample weighed into a tared tin-foil dish. The water was evaporated on a boiling water bath and the final drying done in an electrically heated oven adjusted to give a temperature of approximately 100 degrees Centigrade.

All weighings of samples were made by difference, using Mojonnier weighing crosses and weighing pipettes delivering approximately 2 grams for the total solids, 5 grams for the fat and total nitrogen, and 10 grams for the ash determinations.

The percentages of lactose^a and of solids-not-fat were found by difference:

percentage of lactose = percentage of total solids — (percentage of fat + percentage of total protein + percentage of ash)

percentage of solids-not-fat = percentage of total solids — percentage of fat

THE EXPERIMENTAL DATA

Tables 1 to 5 inclusive give the complete analytical data for each sample studied, arranged in the order of ascending fat percentage. The percentages of water, altho used in the statistical study, are not included in these tables. Table 1 includes the data for all samples

^aPercentages of lactose were also determined with the use of the polariscopes by the Official method of the Association of Official Agricultural Chemists. However, as the percentages so determined have been found to be subject to inaccuracies they were not used in the present study.

(208) taken from the milk of 14 Ayrshire cows. These samples represent 22 lactations distributed as follows:

- 4 lactations of 1 cow
- 2 lactations each of 5 cows
- 1 lactation each of 8 cows

Table 2 gives the data for 321 samples of the milk of Guernsey cows. These samples represent 33 lactations of 16 cows distributed as follows:

- 4 lactations each of 3 cows
- 3 lactations each of 3 cows
- 2 lactations each of 2 cows
- 1 lactation each of 8 cows

Two hundred and sixty-eight samples of the milk of Holstein cows are included in Table 3. These samples were taken from 25 lactations of 19 cows distributed as follows:

- 2 lactations each of 6 cows
- 1 lactation each of 13 cows

One hundred and ninety-nine samples of Jersey milk shown in Table 4 were taken from 22 lactations of 15 cows as follows:

- 3 lactations of 1 cow
- 2 lactations each of 5 cows
- 1 lactation each of 9 cows

One thousand and two samples were taken from the milk of cows of the Guernsey-Holstein crossbred herd. This group of samples represents 96 lactations of 66 cows and was distributed as follows:

- 4 lactations of 1 cow
- 3 lactations each of 4 cows
- 2 lactations each of 19 cows
- 1 lactation each of 42 cows

Table 6 summarizes the data for each group of samples as to both the means of the percentages of the components and the mean percentages based on the milk yield during the period which each sample is considered to represent. The periods of time used for the samples for the purposes of these computations were determined by dividing the time according to the weekly production records, considering the time represented by a sample to extend from the week-end nearest midway between it and the last preceding sample to the week-end nearest midway between it and the next succeeding sample. The time period and the corresponding milk yield in pounds are recorded for each sample in Tables 1 to 5 inclusive. The summaries in Table 6 show the mean percentage content of each component corresponding to the mean percentage of fat at intervals of approximately .5 percent of fat for each group of samples and also the means for all samples in each group. The last section in the table brings together in summarized form all the samples analyzed.

Table 7 gives means and standard deviations, with their corresponding probable errors and the coefficients of variation, for each group of samples and, in the last section, for all the samples grouped together. The values in Table 7 were all computed by statistical methods by grouping the data into classes.

Table 8 lists the coefficients of correlations of the percentages of milk components for each group of samples and for all samples considered together. These were also computed from the classifications of the data made for Table 7.

In Table 9 equations are given which show the regression of each determined value upon each of the other values.

DISCUSSION OF RESULTS

The analytical results tabulated in Tables 1 to 5 show the wide variations which exist in the composition of the milk of the different breeds, of any one breed, and even of any individual cow. The minimum and maximum values found are given in the accompanying table.

TABLE A.—MAXIMUM AND MINIMUM VALUES OF RESULTS OBTAINED IN THE ANALYSES OF MILK FROM DIFFERENT BREEDS: ILLINOIS INVESTIGATIONS
(Expressed in percentage)

	Ayrshire		Guernsey		Holstein	
	Min.	Max.	Min.	Max.	Min.	Max.
Fat.....	2.92	5.66	3.65	7.66	2.60	6.00
Protein.....	2.92	4.58	2.65	5.45	2.44	6.48
Lactose.....	2.41	6.11	3.57	5.78	3.96	5.71
Ash.....	.576	.850	.598	.850	.560	.864
T. S.....	10.56	15.76	12.07	17.88	10.72	17.62
S-N-F.....	7.20	10.38	8.19	11.10	7.82	11.90
Sp.g.....	1.0231	1.0357	1.0274	1.0398	1.0268	1.0385
	Jersey		Crosses		All samples	
	Min.	Max.	Min.	Max.	Min.	Max.
Fat.....	3.28	8.37	2.72	7.50	2.60	8.37
Protein.....	2.93	5.83	2.65	6.25	2.44	6.48
Lactose.....	2.73	5.66	2.95	6.05	2.41	6.11
Ash.....	.567	.817	.580	.936	.560	.936
T. S.....	10.96	17.68	10.58	17.90	10.56	17.90
S-N-F.....	7.68	11.07	7.86	11.73	7.20	11.90
Sp.g.....	1.0240	1.0369	1.0271	1.0385	1.0231	1.0398

These minimum and maximum values for the percentages of the components of milk show that for all samples the maximum percentage of fat is 3.60 times the minimum and that for the percentages of protein, lactose, ash, total solids, and solids-not-fat the maximum percentages are respectively 2.66, 2.54, 1.67, 1.69, and 1.65 times the minimum percentages. That is, the fat is the most widely variable component. The protein and lactose show very nearly the same variation, which is much less than the variation in the fat. The ash, total solids, and solids-not-fat are very similar in relative range from minimum to

maximum. The variation of these components is again much less than the variation of the protein and the lactose. These variations are also shown by the coefficients of variation in Table 7.

Table 6, which gives the summaries for each group of samples and a final summary of all the samples considered together, may be compared with the results of other investigations. A summary of the work of Collier (page 51) shows average compositions of Ayrshire, Guernsey, Holstein, and Jersey milk. Collier's averages for Ayrshire milk show much lower fat, slightly higher ash and total solids, and much higher lactose and solids-not-fat. For Guernsey milk he gives higher fat, lactose, and ash but slightly lower total solids and solids-not-fat. For Holstein milk his averages are higher for fat, total solids, and solids-not-fat, and slightly lower for lactose; and for Jersey milk all his averages are higher. All these comparisons are made with the means based on milk yields as given in Table 6. Comparisons of protein content cannot be made, as Collier lists only casein in his averages.

Sherman's average values for Jersey milk (page 51) are higher for fat, ash, and total solids and lower for protein, lactose, and solids-not-fat than those found in these investigations.

Haecker's average values for the composition of milk giving percentages of each component corresponding to the percentages of fat at .5 percent intervals starting with 3.0 percent of fat are as follows:

No. of samples	Fat %	Protein %	Lactose %	Ash %	T.S. %	S-N-F %
47	3.00	2.68	4.60	.72	11.00	8.00
55	3.50	2.81	4.75	.70	11.76	8.26
57	4.00	3.08	4.85	.69	12.62	8.62
116	4.50	3.27	4.97	.73	13.47	8.97
103	5.00	3.45	4.99	.73	14.17	9.17
89	5.50	3.65	4.92	.73	14.80	9.30
39	6.00	3.82	4.91	.74	15.47	9.47
24	6.50	4.12	4.90	.75	16.27	9.77
13	7.00	4.22	4.84	.76	16.82	9.82
543	4.731	3.349	4.888	.7242	13.692	8.961

A comparison of these averages with those given in the last section of Table 6 shows some very striking differences. The percentage of protein corresponding to each percentage of fat is in each case much lower in Haecker's results than in the results of these investigations. The lactose in Haecker's average shows a gradual increase with increasing fat percentage to 5.0 percent of fat and then decreases. In the present investigations the lactose is fairly constant in average value up to 5.0 percent fat and then decreases with increasing fat. The ash in both investigations increases with increasing fat but in the present study the ash with low fat is lower and with high fat is higher than in Haecker's results. The percentages of total

solids and of solids-not-fat as shown in the last section of Table 6 are in all cases higher than the corresponding values in Haecker's averages.

Tocher gives as the mean composition of 341 samples of single milkings of Ayrshire cows the following figures:

Fat	Protein	Lactose	Ash	S-N-F	Sp.g.
%	%	%	%	%	%
4.085	3.267	4.568	.691	8.753	1.031123

Comparison with the means for Ayrshire milk, given in Table 6, shows that the results of the present study give, with respect to the percentage of fat, relatively much higher protein, higher lactose, and lower ash, solids-not-fat, and specific gravity.

From 676 samples from all cows studied, Tocher gives these means:

Fat	Protein	Lactose	Ash	S-N-F	Sp.g.
%	%	%	%	%	%
3.953	3.241	4.635	.700	8.804	1.031528

The means for all samples given in Table 6 are, with respect to fat, higher for protein, ash, and specific gravity and lower for lactose and solids-not-fat.

The coefficients of correlations given in Table 8 furnish a measure of the degree to which each variable tends to be associated with each of the other variables. Tocher has computed the following coefficients of correlations from his data:

	Ayrshire	All samples
Lactose-fat.....	-.1159 ± .036	-.0577 ± .026
Lactose-ash.....	-.2314 ± .035	-.1775 ± .025
Ash-S-N-F.....	.4150 ± .030	.3176 ± .022
Sp.g.-fat.....	-.1324 ± .034	-.1410 ± .027
Sp.g.-S-N-F.....	.8016 ± .012	.8217 ± .009
Sp.g.-lactose.....	.....	.4847 ± .021
S-N-F-lactose.....	.....	.3523 ± .023
S-N-F-fat.....	.2869 ± .034	.2541 ± .024

Tocher's coefficients of correlations in some cases agree well with those found in this study. However, for the coefficients for lactose and fat for Ayrshire milk, and for specific gravity and fat both for Ayrshire milk and for all samples, he finds negative values, while in the present work these values are positive.

It is interesting to note that in the present study the correlation coefficients of fat and lactose (except for Ayrshire milk), of protein and lactose, of lactose and ash, and of water with each of the other components are all negative; while all the other coefficients are positive, that is, in every case where the correlation is negative, lactose or water is one of the variables. No explanation is attempted for the positive correlation of fat and lactose in Ayrshire milk.

A comparison with the averages given by Rogers (page 52) shows close agreement in most cases. However, as can be seen from the

averages given in Table 6, the protein in the milk of each breed is somewhat higher in proportion to the fat; the lactose is lower for Ayrshire and higher for Holstein milk; and the ash is lower in Jersey milk.

The correlation coefficients show that:

(1) As the percentage of fat increases, the percentages of protein, ash, total solids, and solids-not-fat, and the specific gravity tend to increase, and the percentage of lactose (except in the case of Ayrshire milk) tends to decrease.

(2) As the percentage of protein increases, the percentage of lactose tends to decrease and the percentages of ash, total solids, and solids-not-fat and the specific gravity tend to increase.

(3) As the percentage of lactose increases, the percentage of ash tends to decrease and the percentages of total solids and solids-not-fat and the specific gravity tend to increase.

(4) As the percentage of ash increases, the percentages of total solids and solids-not-fat and the specific gravity tend to increase.

(5) As the percentage of total solids increases, the percentage of solids-not-fat and the specific gravity tend to increase.

(6) As the percentage of water increases, the percentages of each of the other components and the specific gravity tend to decrease.

(7) As the percentage of solids-not-fat increases, the specific gravity tends to increase.

The regression equations of Table 9 are shown graphically in the accompanying figures, in comparison with the trend of the actual mean values (shown by dots) of the groups of data as taken from the correlation tables which were set up for the computations of the correlation coefficients. Each regression equation furnishes a means for estimating one value when the other value involved in the equation is known. The most satisfactory estimated values are to be found in the cases where the regression lines best fit the plotted means.

Further study of the data here presented is planned.

SUMMARY AND CONCLUSIONS

The results of analyses of 1,998 milk samples are tabulated, studied by statistical methods, and comparisons are made with the results of other investigations into the composition of milk. The samples were three-day composites taken at five-week intervals thruout the lactation periods of individual cows and were distributed as follows: 208 samples of Ayrshire milk, 321 samples of Guernsey milk, 268 samples of Holstein milk, 199 samples of Jersey milk, and 1,002 samples of milk from Guernsey-Holstein crossbred cows.

On account of the number of samples analyzed and the way in which the samples were distributed thru the lactation periods of

different cows, the authors believe that the results, especially as to the relations existing between the various components, fairly represent the milk of each breed of cows studied, and that the results of all the analyses taken together are similarly representative of the mixed milk of large numbers of cows of all breeds.

It should be pointed out that the protein content of milk as determined from these investigations is higher^a in relation to the fat content than is usually reported in the literature, and that the lactose does not regularly increase with increasing fat up to a certain fat content and then regularly decrease but that it is nearly constant in percentage to about 5.0 percent of fat and then tends to decrease with further increases in fat.

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^aDr. H. H. Mitchell, Chief in Animal Nutrition at the University of Illinois, has made use of the data presented in this bulletin in a study of the protein requirement for milk production. See Bul. 67 of the National Research Council, "The minimum protein requirements of cattle."

TABLE 1.—COMPOSITION OF 208 SAMPLES OF MILK FROM 14 AYRSHIRE COWS
(4 lactations of 1 cow, 2 each of 5 cows, and 1 each of 8 cows)

Cow No.	Date ¹	Time interval	Pounds ² of milk	Fat per cent.	Protein per cent.	Lactose ³ per cent.	Ash per cent.	Total solids per cent.	Solids ⁴ not-fat per cent.	Specific gravity
135	11-12-23	10-27 to 11-30-23	1 079.5	2.92	2.94	4.45	.634	10.94	8.02	1.0301
135	12-26-22	9-22 to 1-11-23	781.0	2.92	3.10	4.80	.682	11.50	8.38	1.0315
326	6-2-24	5-17 to 6-20-24	2 190.8	3.06	3.24	5.32	.690	12.27	9.21	1.0336
135	11-20-22	11-4 to 12-8-22	920.2	3.10	3.24	3.77	.722	10.82	7.72	1.0275
135	1-20-23	1-12 to 2-16-23	815.6	3.18	3.04	4.73	.711	11.66	8.48	1.0308
135	6-9-24	5-24 to 6-27-24	297.4	3.20	3.12	4.19	.666	11.18	7.98	1.0286
326	4-28-24	4-18 to 5-16-24	1 427.7	3.27	4.02	4.86	.732	12.88	9.61	1.0348
135	3-5-23	2-17 to 3-23-23	765.4	3.32	2.98	4.72	.688	11.70	8.39	1.0314
135	3-5-23	3-24 to 4-27-23	731.5	3.32	2.98	4.91	.671	11.88	8.56	1.0327
135	4-9-23	4-28 to 6-1-23	678.8	3.32	3.06	4.91	.703	11.99	8.67	1.0314
135	5-14-23	6-21 to 7-25-23	1 779.0	3.34	3.16	5.08	.642	12.22	8.88	1.0320
326	7-23-23	7-7 to 8-17-23	244.1	3.34	4.12	4.22	.660	12.34	9.00	1.0309
135	7-23-23	10-6 to 10-26-23	661.0	3.36	3.06	4.30	.688	11.41	8.05	1.0303
135	5-5-24	4-19 to 5-23-24	386.5	3.36	3.14	4.47	.666	11.64	8.28	1.0300
294	7-21-25	7-4 to 8-7-25	909.9	3.36	3.42	5.04	.649	12.47	9.11	1.0339
74	9-3-23	8-18 to 9-21-23	147.0	3.36	3.44	3.06	.704	10.56	7.20	1.0260
304	3-30-25	3-14 to 4-17-25	1 630.9	3.38	3.35	4.88	.684	12.29	8.91	1.0330
294	9-6-26	8-21 to 9-24-26	189.3	3.43	3.48	3.22	.666	10.80	7.37	1.0257
326	9-15-24	8-30 to 10-3-24	1 540.7	3.43	3.48	4.72	.649	12.28	8.85	1.0315
326	8-11-24	7-26 to 8-29-24	1 771.8	3.46	3.28	4.87	.626	12.24	8.78	1.0310
135	12-17-23	12-1 to 1-4-24	842.4	3.47	3.14	4.17	.620	11.40	7.93	1.0291
224	12-10-23	11-24 to 12-28-23	1 778.1	3.47	3.43	5.07	.650	12.62	9.15	1.0330
135	7-14-24	6-28 to 7-25-24	190.2	3.50	3.22	3.98	.628	11.33	7.83	1.0274
342	8-17-25	8-1 to 9-4-25	742.3	3.53	3.33	5.49	.675	13.03	9.50	1.0332
135	6-18-23	6-2 to 7-6-23	520.9	3.54	3.14	4.64	.621	11.94	8.40	1.0310
224	1-20-23	1-13 to 2-16-23	1 188.7	3.54	3.42	5.01	.692	12.66	9.12	1.0327
294	7-7-24	6-21 to 7-25-24	884.3	3.56	3.18	4.84	.662	12.24	8.68	1.0318
294	6-2-24	5-17 to 6-20-24	1 036.2	3.56	3.45	5.19	.635	12.86	9.30	1.0334
224	8-4-25	7-18 to 8-29-25	1 047.3	3.58	3.22	5.07	.710	12.58	9.00	1.0325
294	8-21-25	8-8 to 9-1-25	874.6	3.60	3.58	6.11	.666	13.96	10.36	1.0342
294	5-11-25	4-25 to 5-29-25	1 125.5	3.61	3.12	5.32	.610	12.66	9.05	1.0322
135	2-25-24	2-9 to 3-14-24	543.1	3.62	3.20	4.72	.673	12.21	8.59	1.0313
304	4-21-24	4-5 to 5-9-24	836.7	3.62	3.38	5.04	.676	12.72	9.10	1.0325
135	3-31-24	3-15 to 4-18-24	401.3	3.64	3.16	4.24	.582	11.62	7.98	1.0289
135	1-24-24	1-5 to 2-8-24	736.2	3.64	3.16	4.59	.654	12.04	8.40	1.0324
326	10-20-24	10-4 to 11-7-24	1 363.0	3.64	3.50	4.85	.638	12.63	8.99	1.0315
350	8-9-26	7-24 to 8-27-26	238.1	3.66	3.48	3.65	.648	11.44	7.78	1.0231

¹The three-day composite sample was completed with the morning milking of the date given. ²Milk yield between the dates (inclusive) given in column 3. ³Total solids percent — (fat percent + protein percent + ash percent) = lactose percent. ⁴Total solids percent — fat percent = solids-not-fat percent.

TABLE 1.—COMPOSITION OF AYRSHIRE MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat per cent.	Protein per cent.	Lactose per cent.	Ash per cent.	Total solids per cent.	Solids-not-fat per cent.	Specific gravity
135	8-18-24	7-26 to 8-29-24	151.3	3.67	3.34	3.75	.677	11.44	7.77	1.0280
224	12-26-22	12-9-22 to 1-12-23	1 362.6	3.68	3.28	5.12	.684	12.76	9.08	1.0340
204	11-15-26	8-30 to 12-3-26	85.3	3.69	3.84	5.12	.737	12.76	8.02	1.0311
304	8-4-24	7-19 to 8-22-24	426.4	3.70	3.06	4.31	.654	11.72	8.02	1.0284
304	6-30-24	6-14 to 7-18-24	523.4	3.70	3.10	4.46	.636	11.93	8.20	1.0297
294	6-15-25	5-30 to 7-3-25	1 043.3	3.70	3.28	5.08	.666	12.73	9.03	1.0329
323	8-17-25	8-1 to 9-4-25	610.7	3.70	3.33	5.08	.724	13.03	9.33	1.0319
342	6-8-25	5-23 to 6-26-25	806.5	3.74	3.32	5.06	.660	12.78	9.04	1.0325
294	8-11-24	7-26 to 8-29-24	839.6	3.74	3.34	4.70	.659	12.64	8.90	1.0315
320	11-5-23	10-20 to 11-23-23	702.7	3.75	3.35	4.57	.653	12.35	8.60	1.0307
224	3-5-23	2-17 to 3-23-23	1 007.5	3.75	3.45	4.94	.696	12.84	9.94	1.0329
224	11-5-23	10-20 to 11-23-23	1 841.4	3.76	3.34	4.89	.658	12.65	8.89	1.0331
304	12-10-25	11-21 to 12-25-25	357.6	3.76	3.44	3.30	.665	11.16	7.40	1.0252
304	9-21-25	9-5 to 10-16-25	638.7	3.77	3.23	4.12	.684	11.80	8.03	1.0288
342	7-13-25	6-27 to 7-31-25	739.5	3.78	3.08	5.41	.639	12.91	9.13	1.0314
321	10-13-24	9-27 to 10-31-24	986.6	3.78	3.17	4.82	.576	12.35	8.57	1.0316
224	11-30-25	11-7 to 12-11-25	985.3	3.78	3.53	4.84	.718	12.87	9.09	1.0343
354	3-15-26	2-27 to 4-2-26	764.1	3.79	3.10	5.01	.618	12.52	8.73	1.0305
354	6-28-26	6-12 to 7-16-26	607.6	3.79	3.18	4.74	.638	12.35	8.56	1.0309
224	4-9-23	3-24 to 4-27-23	825.8	3.80	3.52	4.81	.688	12.82	9.02	1.0330
294	7-5-26	6-19 to 7-30-26	212.0	3.81	4.35	4.19	.774	13.12	9.19	1.0328
135	10-1-23	9-14 to 10-5-23	474.7	3.82	3.56	4.16	.725	12.26	8.44	1.0302
224	10-26-25	9-18 to 11-6-25	1 232.7	3.83	3.30	5.01	.718	12.86	9.03	1.0338
224	8-2-26	7-16 to 8-20-26	421.3	3.84	3.44	3.87	.642	11.79	7.95	1.0244
74	5-21-23	5-5 to 6-8-23	983.6	3.86	3.18	4.63	.710	12.38	8.52	1.0302
350	12-7-25	11-21 to 12-18-25	473.7	3.86	3.46	4.59	.708	12.62	8.76	1.0328
326	11-24-24	11-8 to 12-12-24	1 200.0	3.86	3.75	4.68	.614	12.90	9.04	1.0320
320	10-20-24	10-4 to 11-7-24	339.4	3.87	3.43	4.44	.610	12.35	8.48	1.0292
294	4-28-24	4-23 to 5-16-24	668.7	3.88	4.44	4.92	.742	13.98	10.10	1.0354
304	8-17-25	8-1 to 9-4-25	774.8	3.89	3.56	4.60	.648	12.70	8.81	1.0307
74	7-30-23	7-14 to 8-17-23	408.0	3.90	3.23	3.68	.672	11.46	7.56	1.0262
224	5-14-23	4-28 to 6-11-23	676.2	3.90	3.43	5.04	.698	13.08	9.18	1.0332
354	5-24-26	5-8 to 6-11-26	696.6	3.90	3.46	4.83	.617	12.81	8.91	1.0275
74	6-25-23	6-9 to 7-13-23	688.1	3.92	3.10	4.11	.600	11.82	7.90	1.0321
304	9-8-24	8-23 to 9-26-24	348.7	3.94	3.36	4.27	.654	12.72	8.28	1.0293
304	5-8-25	4-18 to 5-22-25	1 248.7	3.94	3.27	4.76	.714	12.75	8.84	1.0329
304	5-26-24	5-10 to 6-13-24	1 693.2	3.94	3.38	4.96	.688	12.96	9.03	1.0320
74	3-12-23	2-24 to 3-30-23	1 238.6	3.95	3.22	4.79	.698	12.36	8.41	1.0348
304	11-2-25	10-17 to 11-20-25	436.2	3.96	3.63	3.95	.728	12.30	8.34	1.0301
320	12-29-24	12-13-24 to 1-16-25	254.8	3.96	3.76	4.78	.666	13.16	9.18	1.0305

TABLE 1.—COMPOSITION OF AYRSHIRE MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
294	5-31-26	5-15 to 6-18-26	447.3	3.98	3.80	4.49	.726	13.00	9.02	1.0296
342	9-21-25	9-5 to 10-9-25	622.8	3.99	3.44	5.12	.686	13.24	9.25	1.0327
326	2-23-25	2-7 to 3-13-25	701.2	3.99	3.57	4.56	.706	12.83	8.84	1.0314
354	4-19-26	4-3 to 5-7-26	678.9	4.00	3.58	4.84	.655	12.62	8.62	1.0310
224	2-8-26	1-16 to 2-10-26	880.3	4.00	3.85	5.04	.714	13.08	9.08	1.0337
304	3-17-24	3-5 to 4-7-24	821.5	4.00	3.92	4.68	.702	13.68	9.68	1.0338
224	2-18-24	2-2 to 3-7-24	1 425.5	4.00	3.94	4.81	.692	13.32	9.32	1.0334
224	1-14-24	12-29-23 to 2-1-24	1 399.9	4.01	3.64	4.81	.660	13.15	9.14	1.0332
320	7-7-24	6-21 to 7-25-24	350.8	4.02	3.34	4.49	.654	12.51	8.49	1.0299
326	1-19-25	1-10 to 2-6-25	570.3	4.02	3.66	4.51	.654	12.84	8.82	1.0318
224	3-15-26	2-20 to 4-2-26	986.0	4.03	3.41	4.92	.704	13.06	9.03	1.0328
224	5-24-26	5-8 to 6-11-26	724.0	4.03	3.71	4.57	.646	12.96	8.93	1.0297
224	3-24-24	3-8 to 4-11-24	1 364.1	4.03	3.78	4.64	.694	13.14	9.11	1.0334
342	11-30-25	11-14 to 12-18-25	556.1	4.03	4.00	4.92	.690	13.64	9.61	1.0353
294	4-6-25	3-21 to 4-24-25	1 154.9	4.04	3.62	5.17	.713	13.54	9.50	1.0355
74	4-16-23	3-31 to 5-4-23	1 113.4	4.06	3.24	4.71	.704	12.71	8.65	1.0325
224	6-2-24	5-17 to 6-20-24	1 146.4	4.06	3.80	4.72	.704	13.28	9.22	1.0334
350	6-28-26	6-12 to 7-23-26	293.8	4.06	3.83	3.58	.667	12.14	8.08	1.0261
348	12-7-25	11-21 to 12-25-25	462.0	4.07	3.56	4.51	.721	12.86	8.79	1.0300
320	4-28-24	4-12 to 5-16-24	391.4	4.08	3.54	4.72	.698	13.04	8.96	1.0321
320	6-2-24	5-17 to 6-20-24	410.9	4.08	3.58	4.53	.672	12.86	8.78	1.0311
224	8-11-24	7-26 to 8-20-24	651.7	4.08	3.94	4.65	.696	13.37	9.29	1.0328
342	5-4-25	4-18 to 5-22-25	795.9	4.09	3.04	5.04	.669	12.84	8.75	1.0306
320	8-11-24	7-26 to 8-29-24	309.1	4.09	3.44	4.75	.665	12.94	8.85	1.0322
326	12-20-24	12-13-24 to 1-9-25	671.7	4.10	3.66	4.54	.628	13.10	9.00	1.0334
326	3-30-25	3-14 to 4-17-25	550.6	4.10	3.74	4.71	.676	13.06	8.96	1.0308
224	1-4-26	12-12-25 to 1-15-26	955.1	4.12	3.42	4.89	.706	13.14	9.02	1.0305
323	4-21-24	4-12 to 5-9-24	551.3	4.12	3.60	5.12	.696	13.54	9.42	1.0327
351	6-28-26	6-12 to 7-16-26	577.3	4.12	3.74	5.07	.689	13.62	9.50	1.0335
350	3-15-26	2-27 to 4-2-26	561.5	4.17	3.52	5.10	.648	13.44	9.27	1.0322
321	3-2-25	2-14 to 3-20-25	790.4	4.17	3.67	4.83	.687	13.36	9.19	1.0335
320	1-14-24	12-29-23 to 2-1-24	466.5	4.18	3.67	4.50	.686	13.04	8.86	1.0311
321	9-15-24	8-30 to 10-3-24	679.6	4.18	3.71	4.70	.643	13.32	9.14	1.0322
324	6-2-24	5-17 to 6-20-24	469.2	4.18	3.66	5.11	.688	13.94	9.76	1.0341
351	4-5-27	3-19 to 4-22-27	402.6	4.18	3.48	4.92	.692	13.81	9.63	1.0342
323	6-30-24	6-14 to 7-18-24	545.6	4.19	3.48	4.89	.668	13.53	9.14	1.0320
342	10-26-25	10-10 to 11-13-25	533.2	4.19	3.92	4.89	.716	13.72	9.53	1.0356
321	12-10-23	11-24 to 12-28-23	660.0	4.20	3.41	4.87	.637	13.12	8.92	1.0320
294	9-28-25	9-12 to 10-16-25	742.0	4.20	3.58	5.05	.646	13.48	9.28	1.0332
304	6-1-25	5-23 to 6-26-25	1 179.3	4.22	3.45	4.68	.692	13.04	8.82	1.0320

TABLE 1.—COMPOSITION OF AYRSHIRE MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat perct.	Protein perct.	Lactose perct.	Ash perct.	Total solids perct.	Solids-not-fat perct.	Specific gravity
320	7-7-24	6-21 to 7-25-24	953.4	4.22	3.80	4.84	.698	13.56	9.34	1.0332
324	11-24-24	11-8 to 12-12-24	282.1	4.22	3.94	4.29	.617	13.07	8.85	1.0304
71	2-5-23	1-20 to 2-23-23	1 349.2	4.24	2.99	4.63	.696	12.56	8.32	1.0330
224	11-30-22	11-4 to 12-8-22	1 494.2	4.24	3.36	5.03	.658	13.29	9.05	1.0344
350	4-10-26	4-3 to 5-7-26	875.6	4.25	3.38	4.72	.687	13.04	8.79	1.0330
354	2-8-26	1-23 to 2-26-26	874.6	4.26	3.01	4.92	.624	12.81	8.55	1.0290
224	6-28-26	6-12 to 7-15-26	556.0	4.26	3.47	4.36	.716	12.81	8.55	1.0294
323	8-4-24	7-19 to 8-22-24	506.3	4.26	3.49	4.80	.684	12.81	8.97	1.0312
350	9-13-26	8-28 to 10-1-26	164.4	4.26	3.51	3.73	.683	12.13	7.87	1.0279
320	3-24-24	3-10 to 4-11-24	370.3	4.28	3.50	4.66	.599	13.04	8.76	1.0311
320	12-10-23	12-24 to 12-28-23	534.1	4.28	3.51	4.44	.669	12.90	8.62	1.0310
364	8-2-26	7-17 to 8-20-26	569.5	4.29	3.38	4.68	.626	12.98	8.69	1.0272
224	5-26-24	5-10 to 6-13-24	106.8	4.29	4.41	2.41	.850	11.96	7.67	1.0258
323	10-11-26	9-23 to 10-29-26	577.4	4.30	3.74	5.13	.745	13.91	9.61	1.0330
294	10-20-24	10-4 to 11-7-24	621.2	4.30	3.95	4.73	.675	13.66	9.36	1.0326
294	11-2-25	10-17 to 11-20-25	757.5	4.30	4.01	4.75	.722	14.23	9.93	1.0354
323	9-21-25	9-5 to 10-9-25	578.8	4.31	3.60	3.23	.662	13.32	9.01	1.0325
350	10-18-26	10-2 to 10-29-26	114.4	4.31	3.70	3.23	.784	12.02	7.71	1.0304
304	1-11-26	12-26-25 to 1-29-26	281.8	4.32	3.64	3.59	.699	12.25	7.93	1.0272
321	4-28-24	4-12 to 5-16-24	510.9	4.32	3.64	5.01	.690	13.64	9.32	1.0330
321	2-18-24	2-2 to 3-7-24	565.6	4.32	3.88	5.01	.670	13.69	9.37	1.0330
323	7-13-25	6-27 to 7-31-25	766.6	4.33	3.37	5.06	.662	13.42	9.09	1.0321
320	9-15-24	8-30 to 10-3-24	328.7	4.33	3.48	4.58	.632	13.02	8.69	1.0298
323	3-31-24	3-15 to 4-11-24	645.9	4.33	3.62	4.84	.706	13.50	9.17	1.0330
321	11-17-24	11-1 to 12-5-24	900.2	4.34	3.48	4.85	.649	13.32	8.98	1.0328
321	11-5-23	10-20 to 11-23-23	757.3	4.34	3.52	4.89	.668	13.42	9.08	1.0330
350	5-24-26	5-8 to 6-11-26	367.6	4.34	3.73	4.34	.626	13.04	8.70	1.0270
350	2-8-26	1-23 to 2-26-26	584.4	4.36	3.34	5.24	.668	13.61	9.25	1.0326
320	2-18-24	2-2 to 3-7-24	404.3	4.36	3.56	4.62	.701	13.24	8.88	1.0312
321	3-24-24	3-8 to 4-11-24	505.3	4.36	3.68	4.87	.614	13.52	9.16	1.0324
224	4-10-26	4-3 to 5-7-26	723.5	4.38	3.46	4.85	.706	13.40	9.02	1.0324
321	4-6-25	3-21 to 4-17-25	530.4	4.41	3.68	4.85	.721	13.76	9.35	1.0334
342	3-30-25	3-14 to 4-17-25	685.5	4.42	3.24	5.20	.692	13.55	9.13	1.0324
224	4-28-24	4-12 to 5-16-24	1 229.7	4.42	3.62	4.78	.678	13.50	9.08	1.0319
342	1-4-26	12-19 to 25 to 1-22-26	1 526.5	4.44	3.92	4.96	.665	13.98	9.54	1.0329
304	2-15-26	1-30 to 3-5-26	251.1	4.46	3.59	4.01	.745	12.80	8.34	1.0252
323	11-30-25	11-14 to 12-18-25	349.4	4.46	4.04	4.37	.738	13.61	9.15	1.0329
323	3-30-25	3-14 to 4-17-25	1 120.7	4.46	3.48	5.04	.705	13.70	9.22	1.0336
224	9-15-24	8-30 to 10-26-24	260.7	4.48	4.02	4.80	.708	14.01	9.53	1.0336
294	3-22-26	3-6 to 4-9-26	511.2	4.49	3.78	4.88	.708	13.86	9.37	1.0336

TABLE 1.—COMPOSITION OF AYRSHIRE MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
224	10-1-23	9-22 to 10-19-23	1 394.7	4.50	3.68	4.82	721	13.72	9.22	1.0325
348	10-30-25	10-17 to 11-20-25	518.1	4.51	3.50	5.05	722	13.78	9.27	1.0335
348	3-29-26	3-6 to 4-9-26	287.4	4.51	3.55	4.82	613	13.49	8.98	1.0307
360	1-4-26	12-10-25 to 1-22-26	616.9	4.52	3.42	4.93	648	13.52	9.00	1.0317
321	1-14-24	12-29-23 to 2-1-24	590.7	4.52	3.90	4.88	700	14.00	9.48	1.0330
224	6-18-23	6-2 to 7-9-23	383.6	4.53	3.94	4.75	677	13.90	9.37	1.0326
323	10-26-25	10-10 to 11-13-25	739.4	4.54	4.08	4.75	726	14.10	9.56	1.0357
321	12-22-24	12-6-24 to 1-9-25	714.0	4.55	3.85	4.80	666	13.87	9.32	1.0340
354	9-6-26	8-21 to 9-24-26	417.1	4.56	3.52	4.77	655	13.51	8.95	1.0313
351	5-24-26	5-8 to 6-11-26	606.3	4.56	3.79	5.08	687	14.12	9.54	1.0302
321	1-26-25	1-10 to 2-13-25	734.0	4.58	3.80	4.77	689	13.82	9.24	1.0325
348	4-26-26	4-10 to 5-21-26	280.3	4.60	3.58	4.82	680	13.68	9.08	1.0319
342	2-8-26	1-23 to 2-26-26	332.3	4.60	3.79	5.09	664	14.14	9.54	1.0323
294	11-24-24	11-8 to 12-12-24	534.1	4.64	4.32	4.70	698	14.36	9.72	1.0353
351	8-2-26	7-17 to 8-20-26	482.9	4.65	3.62	5.11	650	14.03	9.38	1.0257
320	1-26-25	1-17 to 2-13-25	182.5	4.65	3.80	4.61	658	13.72	9.07	1.0313
323	9-8-24	8-23 to 9-26-24	472.4	4.66	3.76	4.85	672	13.94	9.28	1.0319
351	2-15-26	1-30 to 2-26-26	574.6	4.67	3.49	5.16	721	14.04	9.37	1.0316
348	1-11-26	12-26-25 to 1-29-26	395.1	4.68	3.76	4.31	708	13.46	8.78	1.0300
323	10-13-24	9-27 to 10-31-24	436.6	4.68	3.92	4.67	628	13.90	9.22	1.0330
294	1-11-26	12-26-25 to 1-29-26	602.8	4.70	4.02	4.93	628	13.90	9.22	1.0330
326	5-4-25	4-18 to 5-22-25	268.0	4.70	4.16	4.58	708	14.15	9.45	1.0345
323	6-8-25	5-23 to 6-26-25	845.2	4.72	3.26	4.67	675	13.56	8.84	1.0320
294	4-26-26	4-10 to 5-14-26	487.6	4.72	3.57	5.19	678	14.16	9.44	1.0340
323	1-4-26	12-19-25 to 1-22-26	254.9	4.72	4.14	4.29	731	13.88	9.16	1.0328
294	12-29-24	12-13-24 to 1-16-25	343.9	4.72	4.30	4.83	712	14.56	9.84	1.0346
304	7-13-25	6-27 to 7-31-25	806.5	4.74	3.16	4.53	694	13.12	8.38	1.0339
354	1-4-26	12-26-25 to 1-22-26	629.6	4.75	3.76	4.92	758	14.19	9.44	1.0325
304	3-22-26	3-6 to 3-26-26	103.7	4.76	4.07	3.43	718	12.98	8.22	1.0284
320	10-1-23	9-22 to 10-19-23	544.6	4.79	3.76	4.53	716	12.98	8.22	1.0313
354	2-15-26	9-25 to 10-29-26	325.1	4.82	3.50	4.80	685	13.80	8.98	1.0339
294	12-10-25	11-21 to 12-25-25	563.6	4.82	3.93	4.94	708	14.40	9.58	1.0349
323	2-8-26	1-23 to 2-26-26	706.3	4.82	3.97	4.92	725	14.43	9.61	1.0332
331	3-14-26	9-23 to 10-29-26	170.0	4.84	3.74	3.94	663	13.18	8.34	1.0280
351	3-1-27	2-12 to 3-18-27	369.1	4.88	3.70	4.81	724	14.07	9.19	1.0340
348	2-15-26	1-30 to 3-5-26	334.0	4.90	4.16	4.84	725	13.75	8.81	1.0288
320	3-2-25	9-19 to 10-16-25	224.3	5.02	3.86	4.87	698	14.45	9.43	1.0321
348	9-25-25	2-27 to 4-2-26	330.2	5.11	4.15	4.46	746	14.47	9.36	1.0334
351	3-15-26		351.0	5.13	3.66	5.17	666	14.63	9.50	1.0317

TABLE 1.—COMPOSITION OF AYRSHIRE MILK (Concluded)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
351	1-24-27	1-8 to 2-11-27	390.8	5.13	4.28	4.83	.717	14.96	9.83	1.0329
351	1-11-26	12-26-25 to 1-29-26	783.6	5.17	3.49	5.41	.689	14.76	9.59	1.0323
351	9-6-26	8-21 to 9-24-26	305.9	5.27	3.68	5.20	.688	14.82	9.55	1.0326
351	11-15-26	10-29 to 12-3-26	402.8	5.28	3.92	4.75	.693	14.64	9.36	1.0337
323	2-25-24	2-15 to 3-14-24	524.4	5.30	4.50	4.75	.778	15.33	10.03	1.0341
354	11-15-26	10-30 to 11-10-26	133.4	5.34	4.03	4.50	.694	14.56	9.22	1.0326
351	12-7-25	11-21 to 12-25-25	773.3	5.38	3.75	5.93	.702	15.76	10.38	1.0325
321	7-7-24	6-21 to 7-18-24	164.8	5.42	4.58	4.96	.724	15.68	10.26	1.0342
351	4-10-26	4-3 to 3-7-26	543.5	5.52	3.81	5.06	.719	15.11	9.59	1.0338
351	12-20-26	12-4-26 to 1-7-27	401.1	5.53	4.03	5.00	.815	15.38	9.85	1.0289
323	11-17-24	11-1 to 12-5-24	277.8	5.66	4.38	4.80	.730	15.57	9.91	1.0338

TABLE 2.—COMPOSITION OF 321 SAMPLES OF MILK FROM 16 GUERNSEY COWS
(4 lactations each of 3 cows, 3 each of 3 cows, 2 each of 2 cows, and 1 each of 8 cows)

Cow No.	Date ¹	Time interval	Pounds ² of milk	Fat	Protein	Lactose ³	Ash	Total solids	Solids- ⁴ not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
284	6-15-25	5-30 to 7-3-25	1 209.4	3.65	3.75	5.16	.702	13.26	9.61	1.0343
272	6-25-23	6-25 to 7-13-23	1 820.9	3.79	4.38	4.66	.753	13.51	9.79	1.0351
284	7-21-25	7-4 to 8-7-25	1 600.6	3.72	3.05	5.07	.650	12.56	8.77	1.0329
297	8-24-25	8-7 to 9-10-25	151.1	3.88	3.47	4.03	.690	12.07	8.19	1.0292
297	7-21-25	7-3 to 8-6-25	109.9	3.90	3.26	4.61	.706	12.48	8.58	1.0314
297	9-28-25	9-11 to 10-15-25	137.6	3.91	3.46	4.09	.732	12.18	8.28	1.0300
284	9-28-25	9-12 to 10-16-25	1 442.9	3.91	3.16	5.20	.654	12.92	9.01	1.0333
335	7-18-25	7-4 to 8-7-25	1 663.6	3.92	3.04	4.94	.718	12.54	8.62	1.0301
303	6-30-24	6-14 to 7-18-24	1 622.3	3.92	3.42	5.00	.683	13.06	9.14	1.0327
335	5-11-25	5-2 to 6-20-25	1 466.6	3.97	3.17	4.92	.665	13.36	9.30	1.0351
202	7-21-25	7-4 to 8-7-25	1 304.9	4.00	3.32	5.07	.701	13.13	8.90	1.0312
303	8-4-24	7-13 to 8-22-24	573.1	4.04	3.39	4.91	.708	13.06	9.02	1.0331
331	8-11-24	7-20 to 8-29-24	992.0	4.04	3.86	5.06	.682	13.64	9.60	1.0339
270	9-22-24	9-6 to 10-10-24	364.8	4.06	3.60	5.19	.732	13.58	9.32	1.0334
272	7-30-23	7-14 to 8-17-23	1 234.7	4.07	4.32	4.75	.822	13.96	9.89	1.0365
262	3-2-25	2-20 to 3-20-25	1 157.1	4.12	3.62	5.13	.704	13.57	9.45	1.0332
300	4-21-24	4-5 to 5-9-24	1 005.1	4.13	3.16	4.96	.702	12.95	8.82	1.0330
262	4-6-25	3-21 to 4-24-25	1 691.3	4.15	4.00	4.91	.772	13.83	9.08	1.0341
297	6-15-25	6-12 to 7-2-25	1 96.2	4.17	3.17	4.86	.779	12.98	8.81	1.0321
335	8-21-25	8-8 to 9-4-25	1 294.2	4.20	3.21	5.18	.712	13.30	9.10	1.0332
262	5-11-25	4-25 to 5-20-25	1 459.5	4.20	3.04	5.03	.666	12.96	8.74	1.0310
262	6-15-25	5-30 to 7-3-25	1 351.4	4.22	3.04	4.69	.695	12.97	8.75	1.0308
297	7-14-24	6-28 to 8-1-24	645.7	4.23	3.36	4.22	.724	13.92	9.69	1.0341
272	9-18-22	9-2 to 10-6-22	1 174.3	4.23	4.05	4.92	.724	13.92	9.69	1.0341
262	8-4-24	7-19 to 8-22-24	630.5	4.28	3.36	4.86	.702	13.20	8.92	1.0321
300	8-24-25	8-8 to 9-11-25	614.2	4.28	3.92	4.61	.763	13.57	9.29	1.0353
262	6-30-24	6-14 to 7-18-24	706.0	4.31	3.12	4.77	.651	12.84	8.54	1.0313
301	9-22-24	9-20 to 10-10-24	425.7	4.31	4.90	4.24	.829	14.28	9.97	1.0348
303	3-5-25	2-17 to 3-23-23	910.0	4.32	3.25	5.24	.732	13.54	9.22	1.0334
335	6-15-25	5-30 to 7-3-25	1 914.9	4.33	2.65	5.29	.650	12.92	8.59	1.0314
303	4-21-24	4-5 to 5-9-24	770.7	4.33	3.63	5.08	.745	13.78	9.45	1.0336
300	1-2-23	12-29-22 to 1-19-23	534.3	4.33	3.28	4.96	.814	14.38	10.05	1.0363
297	5-5-24	4-30 to 5-23-24	739.4	4.34	4.61	4.46	.824	14.26	9.92	1.0341
636	1-2-22	12-20-21 to 1-16-22	130.3	4.38	3.89	4.41	.744	13.42	9.04	1.0323
303	5-14-23	4-28 to 6-1-23	844.5	4.39	3.62	5.06	.770	13.84	9.45	1.0352

¹The three-day composite sample was completed with the morning milking of the date given. ²Milk yield between the dates (inclusive) given in column 3. ³Total solids percent — (fat percent + protein percent) = lactose percent. ⁴Total solids percent — fat percent = solids-not-fat percent.

TABLE 2.—COMPOSITION OF GUERNSEY MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat perct.	Protein perct.	Lactose perct.	Ash perct.	Total solids perct.	Solids-not-fat perct.	Specific gravity
297	8-18-24	8-2 to 9-5-24	549.4	4.40	3.24	4.51	.700	12.85	8.45	1.0308
297	6-9-24	5-24 to 6-27-24	795.7	4.42	3.46	5.00	.736	13.62	9.20	1.0329
284	5-31-26	5-8 to 6-11-26	1 110.7	4.42	3.72	5.76	.679	14.58	10.16	1.0282
282	9-25-25	9-25 to 10-9-25	528.8	4.42	3.84	4.86	.740	13.86	9.44	1.0346
282	1-17-22	12-31-21 to 2-3-22	707.7	4.44	3.49	5.34	.742	14.01	9.57	1.0344
303	8-27-23	8-11 to 9-14-23	635.3	4.44	3.60	5.03	.738	13.81	9.37	1.0327
282	9-28-25	9-12 to 10-16-25	1 145.3	4.46	3.43	4.87	.664	13.42	8.96	1.0327
282	6-18-23	6-2 to 7-6-23	745.0	4.46	3.50	5.13	.736	13.89	9.43	1.0339
297	6-25-23	6-2 to 7-13-23	1 257.0	4.47	3.43	5.13	.719	13.70	9.23	1.0326
282	10-30-25	10-10 to 11-13-25	967.5	4.48	3.15	5.51	.687	13.86	9.38	1.0350
284	8-9-26	7-24 to 8-3-26	823.1	4.48	3.47	5.15	.598	13.70	9.22	1.0279
284	2-8-26	1-23 to 2-26-26	781.6	4.49	3.63	5.18	.724	13.02	9.43	1.0340
272	9-22-24	9-6 to 10-10-24	828.7	4.50	3.48	5.27	.692	13.90	9.10	1.0355
284	11-2-25	10-17 to 11-20-25	1 307.1	4.50	3.63	5.09	.748	13.96	9.41	1.0352
271	2-21-22	2-4 to 3-10-22	632.2	4.50	3.76	4.95	.744	13.84	9.34	1.0341
272	2-18-24	2-9 to 3-2-24	66.7	4.50	4.36	4.24	.728	14.20	9.68	1.0340
272	9-3-23	8-18 to 9-21-23	1 136.4	4.52	3.86	5.09	.692	13.58	9.05	1.0320
303	9-8-24	8-23 to 9-26-24	507.8	4.53	3.40	4.96	.718	13.89	9.36	1.0325
300	5-26-24	5-10 to 6-13-24	753.7	4.53	3.54	5.10	.837	14.76	10.23	1.0370
301	1-5-23	12-29-22 to 1-19-23	444.3	4.53	4.92	4.47	.640	13.36	8.82	1.0315
272	7-14-24	6-28 to 8-1-24	1 111.7	4.54	3.11	5.07	.684	13.50	8.96	1.0328
335	9-25-25	9-5 to 10-9-25	1 436.7	4.54	3.38	4.90	.684	13.50	8.96	1.0325
300	8-4-24	7-19 to 8-22-24	499.4	4.54	3.64	5.09	.692	13.86	9.32	1.0325
267	12-13-21	11-26 to 12-30-21	1 073.8	4.54	4.07	5.18	.756	14.18	9.63	1.0338
303	5-26-24	5-10 to 6-13-24	548.2	4.55	3.68	5.15	.672	14.46	9.90	1.0320
287	3-28-22	3-11 to 4-14-22	294.8	4.56	3.88	5.55	.732	12.90	8.34	1.0308
636	11-29-21	11-15 to 12-19-21	198.9	4.58	3.43	5.08	.756	13.82	9.24	1.0325
303	7-23-23	7-7 to 8-10-23	618.7	4.58	4.46	4.83	.794	14.66	10.08	1.0358
297	11-27-22	11-17 to 12-15-22	1 231.2	4.58	4.76	5.17	.746	14.30	9.70	1.0350
300	2-5-23	1-20 to 2-23-23	851.4	4.61	3.78	5.19	.634	13.48	8.87	1.0323
284	8-24-25	8-8 to 9-11-25	1 388.0	4.61	3.05	5.16	.692	14.01	9.40	1.0303
284	7-5-26	6-12 to 7-23-26	921.4	4.61	3.34	5.44	.718	14.12	9.50	1.0346
282	12-7-25	11-14 to 12-18-25	4.62	4.62	3.55	5.15	.758	14.06	9.44	1.0333
303	4-0-23	3-24 to 4-27-23	871.8	4.62	3.50	5.02	.707	14.10	9.48	1.0346
284	10-10-25	11-21 to 12-25-25	1 225.2	4.62	3.75	4.76	.713	14.01	9.38	1.0333
284	12-13-24	9-27 to 10-31-24	480.4	4.63	3.91	4.63	.741	13.61	8.97	1.0316
262	5-26-24	5-10 to 6-13-24	905.8	4.64	3.50	4.63	.693	13.74	9.10	1.0322
262	9-8-24	8-23 to 9-26-24	565.9	4.64	3.70	4.63	.693	13.74	9.10	1.0322
636	2-8-22	1-17 to 2-6-22	63.8	4.64	4.08	4.16	.742	13.62	8.98	1.0318

TABLE 2.—COMPOSITION OF GUERNSEY MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
282	7-10-22	6-24 to 7-28-22	499.6	4.66	4.06	5.17	.710	14.60	9.94	1.0346
284	3-7-27	2-19 to 3-11-27	329.6	4.66	4.08	4.68	.642	14.06	9.40	1.0298
282	8-14-22	7-29 to 9-1-22	487.0	4.66	4.13	5.01	.715	14.52	9.86	1.0341
284	2-15-26	1-30 to 3-5-26	1 154.8	4.67	3.44	5.16	.696	13.97	9.30	1.0306
284	9-13-26	9-4 to 10-1-26	464.5	4.67	3.51	4.91	.648	13.74	9.07	1.0287
297	9-22-24	9-6 to 10-10-24	441.4	4.67	3.76	4.64	.708	13.78	9.11	1.0315
300	9-8-24	8-23 to 9-26-24	436.3	4.68	3.74	4.74	.675	13.84	9.16	1.0327
282	6-7-22	5-20 to 6-23-22	593.1	4.68	3.79	4.97	.734	14.17	9.49	1.0341
300	3-17-24	3-1 to 4-4-24	1 217.5	4.68	3.82	5.00	.739	14.27	9.56	1.0327
297	1-2-23	12-16-22 to 1-19-23	1 811.0	4.68	3.82	5.07	.747	14.32	9.64	1.0350
300	6-30-24	6-14 to 7-18-24	438.2	4.69	3.48	4.85	.688	13.71	9.02	1.0318
272	8-18-24	8-2 to 9-5-24	972.2	4.70	3.06	5.21	.654	13.62	8.92	1.0320
262	8-24-25	8-8 to 9-11-25	1 224.9	4.70	3.32	5.05	.676	13.75	9.05	1.0325
272	6-8-25	5-16 to 6-19-25	336.8	4.70	3.78	4.59	.674	13.74	9.04	1.0318
271	12-13-21	11-26 to 12-30-21	907.1	4.70	4.07	4.87	.764	14.40	9.70	1.0335
301	10-27-24	10-11 to 11-14-24	739.2	4.71	3.95	4.79	.767	14.22	9.51	1.0341
262	4-21-24	4-5 to 5-9-24	1 434.9	4.72	3.35	5.08	.698	13.86	9.14	1.0316
282	4-19-26	4-3 to 5-7-26	746.2	4.72	3.66	5.17	.732	14.28	9.56	1.0340
267	1-17-22	12-31-21 to 2-3-22	888.7	4.72	4.03	4.73	.760	14.26	9.54	1.0352
282	3-28-22	3-11-22 to 4-14-22	669.1	4.73	3.82	5.28	.687	14.52	9.79	1.0333
271	7-10-22	6-21 to 7-28-22	524.0	4.74	4.12	5.16	.747	14.77	10.03	1.0346
267	3-28-22	3-11 to 4-14-22	818.1	4.75	4.19	5.08	.742	14.76	10.01	1.0338
300	1-26-25	1-10 to 2-13-25	580.1	4.76	4.08	4.82	.738	14.40	9.64	1.0330
297	3-12-23	2-24 to 3-30-23	1 396.2	4.76	3.95	5.10	.734	14.29	9.51	1.0346
271	6-7-22	5-20 to 6-23-22	533.3	4.78	3.75	5.29	.738	14.36	9.78	1.0334
300	10-13-24	9-27 to 10-31-24	409.3	4.78	3.90	4.62	.705	14.00	9.22	1.0322
331	7-7-24	6-21 to 7-25-24	915.2	4.78	3.96	4.91	.811	14.46	9.68	1.0338
282	9-18-22	9-2 to 10-6-22	468.6	4.78	4.18	4.98	.724	14.66	9.88	1.0339
282	1-4-26	12-19-25 to 1-22-26	864.2	4.80	3.46	5.25	.692	14.20	9.40	1.0328
282	3-15-26	2-27 to 4-2-26	724.1	4.80	3.70	5.26	.738	14.50	9.70	1.0349
297	10-27-24	10-11 to 11-14-24	399.0	4.80	3.84	4.47	.714	13.82	9.02	1.0317
284	11-22-26	11-6 to 12-10-26	571.0	4.82	3.90	5.19	.698	14.61	9.79	1.0336
267	7-30-23	7-14 to 8-17-23	412.4	4.82	4.64	4.68	.844	14.98	10.16	1.0340
271	5-2-22	4-14 to 5-19-22	561.7	4.84	3.74	5.15	.719	14.45	9.61	1.0329
272	10-27-24	10-11 to 11-14-24	769.5	4.84	3.81	4.98	.672	14.30	9.46	1.0335
284	4-19-26	4-3 to 5-7-26	1 048.2	4.86	3.64	5.21	.704	14.41	9.55	1.0330
271	1-17-22	12-31-21 to 2-3-22	712.9	4.86	3.69	4.66	.756	13.97	9.11	1.0352
284	3-15-26	3-6 to 4-2-26	872.3	4.86	3.69	5.21	.721	14.48	9.62	1.0343
297	2-5-23	1-20 to 2-23-23	1 567.8	4.86	3.76	5.19	.732	14.54	9.68	1.0351
284	10-18-26	10-2 to 11-5-26	576.8	4.87	3.52	4.54	.703	13.63	8.76	1.0328

TABLE 2.—COMPOSITION OF GUERNSEY MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat per cent.	Protein per cent.	Lactose per cent.	Ash per cent.	Total solids per cent.	Solids-not-fat per cent.	Specific gravity
272	5-4-25	4-11 to 5-15-25	390.6	4.87	3.91	4.71	.703	14.19	9.32	1.0326
300	11-2-25	6-20 to 11-20-25	362.1	4.87	4.13	4.99	.785	14.77	9.90	1.0353
272	7-13-25	7-14 to 7-24-25	289.4	4.88	3.77	4.84	.690	14.18	9.30	1.0325
297	7-30-23	7-14 to 8-17-23	186.8	4.88	3.91	5.06	.750	14.60	9.72	1.0336
300	9-3-23	8-18 to 9-21-23	485.9	4.88	3.94	4.85	.764	14.43	9.55	1.0331
300	4-6-25	3-21 to 4-24-25	461.0	4.88	4.10	4.93	.754	14.66	9.78	1.0346
287	6-7-22	5-20 to 6-23-22	325.3	4.88	4.12	5.37	.726	15.10	10.22	1.0335
262	8-17-24	3-8 to 4-4-24	215.4	4.90	3.72	5.01	.737	14.37	9.47	1.0326
282	2-21-22	2-4 to 3-10-22	618.6	4.90	3.78	5.11	.728	14.52	9.62	1.0341
282	2-26	7-16 to 8-20-26	584.2	4.90	3.79	4.65	.686	14.03	9.13	1.0294
301	8-6-26	7-27 to 8-27-26	460.6	4.91	4.23	4.78	.732	13.64	10.74	1.0313
272	10-23-22	10-27 to 11-10-22	1 054.6	4.92	4.23	4.70	.725	14.82	10.04	1.0354
300	11-17-24	11-1 to 12-8-24	313.5	4.94	4.39	4.83	.702	14.95	9.90	1.0348
272	8-17-25	7-25 to 8-28-25	241.5	4.94	3.97	4.52	.696	14.44	9.50	1.0322
272	2-23-25	1-31 to 3-6-25	473.1	4.94	4.12	4.77	.705	14.32	9.38	1.0340
301	6-31-26	5-15 to 6-18-26	570.1	4.95	3.96	4.72	.746	14.44	9.49	1.0274
331	9-15-24	8-30 to 10-3-24	897.4	4.96	3.94	4.72	.700	14.37	9.41	1.0338
300	6-11-25	4-25 to 5-29-25	407.9	4.96	3.93	4.99	.700	14.58	9.62	1.0338
297	9-3-23	8-18 to 9-21-23	1 119.8	4.96	4.08	5.01	.730	14.78	9.82	1.0338
300	2-15-26	1-30 to 3-5-26	507.6	4.96	4.16	5.06	.803	14.98	10.02	1.0347
300	6-15-25	5-30 to 7-3-25	395.0	4.98	3.44	5.28	.740	14.44	9.46	1.0331
271	3-28-22	3-11 to 4-14-22	578.2	4.98	3.69	5.28	.706	14.66	9.68	1.0321
300	3-2-25	2-14 to 3-20-25	542.7	4.98	4.26	4.81	.770	14.82	9.84	1.0358
282	6-28-26	6-12 to 7-15-26	685.9	4.99	3.66	5.04	.728	14.42	9.43	1.0322
287	12-13-21	11-26 to 12-30-21	453.0	5.00	3.80	5.05	.716	14.57	9.57	1.0334
282	5-2-22	4-15 to 5-10-22	697.2	5.00	3.94	5.21	.711	14.86	9.86	1.0345
300	12-10-25	11-21 to 12-25-25	513.2	5.00	4.14	5.12	.708	14.97	9.97	1.0338
315	6-15-25	5-28 to 7-3-25	679.8	5.04	3.65	5.33	.711	14.73	9.69	1.0336
282	5-24-26	5-8 to 6-11-26	669.3	5.04	3.75	5.10	.658	14.55	9.51	1.0316
270	5-5-24	4-19 to 5-23-24	765.1	5.04	4.04	4.70	.722	14.50	9.46	1.0330
297	4-16-23	3-31 to 5-4-23	1 399.5	5.06	3.72	5.14	.736	14.66	9.60	1.0350
303	11-5-23	10-20 to 11-23-23	462.5	5.06	3.74	4.77	.732	14.30	9.24	1.0319
301	7-5-26	6-19 to 7-23-26	554.9	5.06	4.22	5.00	.788	15.07	10.01	1.0332
272	3-30-25	3-7 to 4-10-25	426.5	5.07	3.84	4.77	.686	14.38	9.31	1.0330
300	3-22-26	3-6 to 4-9-26	441.7	5.07	3.86	5.25	.700	14.87	9.80	1.0330
331	10-20-24	10-4 to 11-7-24	818.4	5.07	4.10	4.95	.753	14.87	9.80	1.0322
335	12-7-25	11-14 to 12-18-25	1 297.8	5.07	4.24	4.71	.816	14.84	9.77	1.0344
335	8-2-26	7-17 to 8-20-26	465.7	5.07	4.34	4.89	.700	15.00	9.93	1.0292
284	1-11-26	12-26-25 to 1-20-26	1 151.5	5.08	3.65	5.15	.701	14.58	9.50	1.0355
262	2-15-26	1-30 to 3-5-26	656.1	5.08	3.70	5.01	.726	14.52	9.44	1.0327
287	1-17-22	12-31-21 to 2-3-22	392.5	5.08	3.72	5.25	.728	14.78	9.70	1.0346

TABLE 2.—COMPOSITION OF GUERNSEY MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
300	10-8-23	9-22 to 10-26-23	404.6	5.09	4.02	4.81	.768	14.69	9.60	1.0337
284	2-2-27	1-15 to 2-18-27	588.8	5.09	4.16	4.96	.708	14.92	9.83	1.0309
284	1-20-23	1-12 to 2-16-23	916.2	5.10	3.99	4.81	.802	14.70	9.60	1.0351
300	5-21-23	5-5 to 6-8-23	655.0	5.10	4.16	5.02	.780	15.06	9.96	1.0349
315	11-17-24	11-1 to 12-5-24	1 093.4	5.11	3.71	5.11	.714	14.64	9.59	1.0347
335	5-8 to 6-11-26	9-57.1	957.1	5.11	4.02	4.89	.676	14.70	9.72	1.0312
300	1-24-26	12-26 to 25 to 1-29-26	506.2	5.11	4.18	4.76	.779	14.83	9.85	1.0347
300	11-12-23	10-27 to 11-30-23	390.4	5.11	4.24	4.82	.754	14.96	10.35	1.0347
271	8-14-22	7-29 to 9-1-22	483.9	5.11	4.44	5.16	.752	15.46	10.35	1.0354
301	5-11-25	4-25 to 5-27-25	448.3	5.13	4.04	5.07	.624	14.86	9.73	1.0333
272	10-8-23	9-22 to 10-26-23	752.3	5.14	3.66	4.87	.666	14.34	9.20	1.0327
282	12-13-21	11-26 to 12-30-21	858.3	5.14	3.68	4.96	.724	14.50	9.36	1.0356
282	2-21-22	2-4 to 3-10-22	813.3	5.14	3.86	4.78	.746	14.53	9.39	1.0341
267	6-9-24	5-31 to 6-27-24	853.1	5.14	4.09	4.95	.768	14.95	9.81	1.0334
267	6-7-22	5-20 to 6-23-22	796.5	5.14	4.32	5.06	.784	15.30	10.16	1.0363
297	5-21-23	5-5 to 6-8-23	1 331.0	5.16	3.69	5.10	.732	14.68	9.52	1.0346
301	4-26-26	4-10 to 5-14-26	599.7	5.16	3.87	5.15	.798	14.98	9.82	1.0354
267	1-2-23	12-16 to 23 to 1-19-23	579.5	5.16	3.87	4.79	.833	15.32	10.16	1.0359
282	10-14-26	9-25 to 10-29-26	303.9	5.17	3.84	4.11	.746	13.87	8.70	1.0313
303	3-17-24	3-1 to 4-4-24	671.6	5.17	3.87	5.05	.761	14.85	9.68	1.0328
262	11-17-24	11-1 to 12-5-24	273.0	5.17	4.81	4.77	.760	15.51	10.34	1.0366
270	6-15-25	5-30 to 6-26-25	655.1	5.18	4.04	4.97	.733	14.92	9.74	1.0336
282	6-8-26	8-21 to 9-24-26	431.5	5.20	3.72	4.63	.678	14.23	9.03	1.0303
335	2-8-26	1-23 to 2-26-26	1 151.9	5.20	3.89	5.03	.762	14.88	9.68	1.0334
300	5-12-23	2-24 to 3-30-23	739.7	5.20	4.06	5.14	.757	15.10	9.96	1.0353
270	5-11-25	4-25 to 5-29-25	919.3	5.21	3.59	5.51	.727	15.04	9.89	1.0345
301	2-5-23	1-20 to 2-23-23	844.8	5.21	3.91	5.73	.812	15.66	10.45	1.0360
303	10-1-23	9-15 to 10-19-23	510.6	5.21	3.84	4.86	.750	14.66	9.45	1.0318
301	2-15-26	1-30 to 3-5-26	741.6	5.21	3.84	5.14	.812	15.00	9.79	1.0339
300	12-22-24	12-6 to 24 to 1-9-25	517.4	5.21	4.22	4.71	.748	14.89	9.68	1.0346
297	1-5-25	12-6 to 24 to 1-9-25	922.8	5.22	4.44	5.03	.732	13.95	8.74	1.0297
315	12-22-24	11-15 to 12-19-24	640.2	5.22	3.70	5.03	.699	14.65	9.43	1.0340
272	12-1-24	3-21 to 4-24-25	489.2	5.22	4.06	4.84	.696	14.82	9.60	1.0347
301	4-6-25	3-21 to 4-24-25	664.2	5.22	4.28	4.82	.785	15.10	9.88	1.0349
270	4-6-25	12-26 to 25 to 1-29-26	1 014.9	5.23	3.82	4.87	.767	14.61	9.41	1.0340
262	1-11-26	1-17 to 2-13-25	445.3	5.23	3.89	4.87	.728	14.72	9.49	1.0330
301	1-26-25	2-4 to 3-10-25	357.0	5.24	4.45	4.70	.780	15.16	9.93	1.0353
287	2-21-22	1-17 to 2-13-25	337.0	5.24	3.82	5.04	.680	14.78	9.54	1.0340
300	7-30-23	7-14 to 8-17-23	485.8	5.26	4.06	5.04	.781	15.14	9.88	1.0336
272	1-24-24	1-15 to 2-8-24	326.6	5.26	4.34	4.41	.754	14.76	9.50	1.0331

TABLE 2.—COMPOSITION OF GUERNSEY MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat perct.	Protein perct.	Lactose perct.	Ash perct.	Total solids perct.	Solids-not-fat perct.	Specific gravity
300	7-21-25	7-4 to 8-7-25	430.4	5.27	4.09	4.79	.732	14.88	9.61	1.0325
287	5-2-22	4-15 to 5-19-22	293.7	5.28	3.76	5.37	.692	15.10	9.82	1.0350
301	3-22-26	3-6 to 4-9-26	632.1	5.29	3.56	5.32	.683	14.86	9.57	1.0331
267	9-3-23	8-18 to 10-5-23	486.4	5.29	3.86	4.63	.798	14.58	9.29	1.0317
300	4-26-26	4-10 to 5-14-26	360.4	5.29	3.94	5.24	.769	15.24	9.95	1.0350
272	9-21-25	8-29 to 10-16-25	178.5	5.32	3.02	4.53	.632	14.00	8.08	1.0302
335	4-19-26	4-3 to 5-7-26	956.0	5.32	3.75	5.17	.728	14.96	9.77	1.0341
300	9-28-25	9-12 to 10-16-25	599.1	5.33	3.80	5.24	.754	15.10	9.64	1.0346
262	12-10-25	11-21 to 12-25-25	689.8	5.33	3.84	5.05	.735	14.97	9.81	1.0333
270	6-9-24	5-24 to 6-27-24	623.6	5.33	4.18	4.89	.788	15.14	9.81	1.0331
270	3-31-24	3-15 to 4-18-24	840.9	5.35	4.50	4.64	.788	15.28	9.93	1.0348
300	4-16-23	3-31 to 5-4-23	710.2	5.36	4.10	4.94	.782	15.18	9.82	1.0346
335	10-30-25	10-10 to 11-13-25	778.9	5.36	4.27	4.58	.713	14.92	9.56	1.0357
300	5-2-22	4-15 to 5-19-22	813.4	5.36	4.36	5.48	.805	16.00	10.64	1.0354
267	2-5-23	1-20 to 2-23-23	495.3	5.37	4.61	4.89	.820	15.69	10.32	1.0398
303	11-17-24	10-18-24 to 12-5-24	649.9	5.38	4.16	4.70	.758	15.00	9.62	1.0342
335	3-15-26	2-27 to 4-2-26	209.0	5.39	4.40	4.98	.710	15.26	9.87	1.0341
272	1-5-25	12-20-24 to 1-9-25	358.3	5.40	4.30	4.55	.748	15.00	9.60	1.0337
301	3-2-25	2-14 to 3-20-25	530.0	5.40	4.46	4.66	.798	15.32	9.92	1.0355
270	3-28-22	3-11 to 4-14-22	608.9	5.41	3.79	5.53	.734	15.46	10.05	1.0337
303	10-6-24	9-27 to 10-17-24	249.5	5.41	3.93	4.32	.702	14.86	9.45	1.0318
297	12-1-24	11-15 to 12-19-24	317.7	5.41	4.21	4.53	.732	14.88	9.47	1.0324
301	1-11-26	12-26-25 to 1-29-26	883.1	5.42	3.76	5.10	.803	15.08	9.66	1.0334
301	5-21-23	5-5 to 6-8-23	554.3	5.43	4.11	4.75	.808	15.10	9.67	1.0337
282	10-23-22	10-7 to 11-10-22	373.6	5.44	4.60	4.84	.785	15.66	10.22	1.0353
267	5-21-23	5-5 to 6-8-23	449.9	5.46	3.81	4.96	.748	14.98	9.52	1.0338
300	6-25-23	6-9 to 7-13-23	558.1	5.47	3.93	5.13	.750	15.28	9.81	1.0330
331	12-1-24	11-15 to 12-19-24	620.3	5.50	4.35	4.90	.798	15.53	10.05	1.0381
331	6-8-25	5-23 to 6-26-25	514.7	5.50	4.04	4.69	.732	14.96	9.46	1.0329
271	9-18-22	12-13-24 to 1-9-25	472.4	5.50	4.72	5.09	.774	15.72	10.22	1.0350
270	6-7-22	5-20 to 6-23-22	430.7	5.52	4.03	5.43	.745	15.67	10.78	1.0358
315	7-18-25	7-2 to 7-31-25	507.5	5.52	4.08	4.79	.702	15.04	9.52	1.0330
267	7-10-25	6-24 to 7-28-22	760.5	5.52	4.32	5.08	.784	15.70	10.18	1.0334
262	11-27-22	11-11 to 12-15-22	1 014.9	5.52	4.47	5.03	.782	15.80	10.28	1.0385
315	3-15-26	3-6 to 4-2-26	461.4	5.54	3.87	4.98	.756	15.15	9.61	1.0335
315	9-25-25	9-5 to 10-9-25	532.1	5.54	4.11	4.84	.713	15.20	9.66	1.0338
262	4-19-26	4-3 to 5-7-26	509.4	5.55	3.98	5.08	.754	15.36	9.81	1.0353
270	8-17-25	8-1 to 9-4-25	695.9	5.56	4.27	5.07	.738	15.64	10.08	1.0334
267	11-27-22	11-17 to 12-15-22	387.9	5.56	5.11	4.17	.850	15.69	10.13	1.0345

TABLE 2.—COMPOSITION OF GUERNSEY MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
335	1-7-26	12-19-25 to 1-22-26	1 219.7	5.58	4.27	4.92	.772	15.54	9.96	1.0341
331	8-17-25	8-1 to 9-4-25	415.2	5.60	4.26	5.04	.740	15.64	10.04	1.0323
303	12-10-23	11-24 to 12-28-23	413.0	5.61	4.16	5.00	.760	15.53	9.92	1.0335
267	11-12-23	10-27 to 11-30-23	428.4	5.62	4.00	4.55	.794	14.96	9.34	1.0320
270	7-10-22	6-24 to 7-28-22	571.9	5.62	4.09	5.34	.752	15.80	10.18	1.0345
272	1-19-25	1-10 to 1-30-25	311.8	5.62	4.21	4.75	.720	15.30	9.49	1.0359
301	12-10-25	11-17 to 12-25-25	1 019.8	5.63	3.79	4.93	.768	15.12	9.49	1.0325
272	12-17-23	12-1 to 12-25-25	543.3	5.63	4.04	4.78	.678	15.13	9.50	1.0336
272	1-5-23	12-16-22 to 1-4-24	972.9	5.66	4.50	4.91	.772	15.84	10.18	1.0367
331	9-21-25	9-5 to 9-18-25	134.2	5.67	3.94	5.12	.770	15.50	9.83	1.0324
272	11-12-23	10-27 to 11-30-23	618.9	5.68	4.02	4.65	.708	15.06	9.38	1.0322
267	6-25-23	6-9 to 7-13-23	326.6	5.68	4.50	5.17	.752	16.10	10.42	1.0352
267	3-12-23	2-24 to 3-30-23	452.1	5.70	4.30	4.79	.808	15.60	9.90	1.0341
272	3-12-23	2-24 to 3-30-23	867.3	5.72	4.44	5.00	.768	15.91	10.21	1.0368
315	5-11-25	4-25 to 5-27-25	683.9	5.74	3.82	5.01	.733	15.28	9.51	1.0351
297	10-8-23	9-22 to 10-26-23	925.6	5.74	4.22	4.84	.770	15.62	9.81	1.0345
270	2-25-24	2-9 to 3-14-24	902.7	5.74	4.29	4.82	.770	15.62	9.81	1.0345
262	11-9-25	10-17 to 11-20-25	804.7	5.76	3.64	5.14	.730	15.27	9.51	1.0350
272	2-5-23	1-20 to 2-23-23	919.1	5.76	4.23	4.94	.752	15.68	9.92	1.0353
301	3-12-23	2-24 to 3-30-23	754.4	5.76	4.37	4.88	.820	15.89	10.13	1.0358
315	8-21-25	8-1 to 9-4-25	615.5	5.77	4.19	4.88	.758	15.60	9.83	1.0345
267	12-17-23	12-1 to 12-13-25	362.0	5.77	4.62	4.73	.814	15.94	10.16	1.0345
315	1-26-25	1-10 to 2-13-25	827.1	5.78	4.00	4.94	.742	15.47	9.68	1.0342
301	6-15-25	5-28 to 7-3-25	456.0	5.80	4.20	5.05	.756	15.76	9.96	1.0340
300	12-17-23	12-1 to 12-13-25	264.0	5.80	4.49	5.00	.785	16.12	10.32	1.0345
284	12-27-26	12-11-26 to 1-14-27	604.4	5.81	3.90	4.86	.688	15.26	9.45	1.0317
270	9-21-25	9-5 to 10-9-25	588.5	5.83	4.22	4.81	.718	15.58	9.75	1.0333
270	7-14-24	6-28 to 8-1-24	477.7	5.86	4.15	4.80	.718	15.53	9.67	1.0330
270	8-14-22	7-29 to 9-1-22	548.5	5.86	4.66	5.03	.768	16.32	10.46	1.0329
331	7-13-25	6-27 to 7-31-25	422.2	5.87	3.92	4.97	.738	15.50	9.63	1.0339
331	5-4-25	4-18 to 5-22-25	484.1	5.87	4.18	4.88	.767	15.70	9.83	1.0339
267	4-16-23	3-31 to 5-4-23	428.9	5.89	4.24	4.85	.778	15.76	9.87	1.0337
270	4-19-26	4-3 to 5-7-26	388.7	5.89	4.64	4.87	.767	16.17	10.28	1.0363
270	7-13-25	6-27 to 7-31-25	692.6	5.90	3.94	4.97	.692	15.50	9.60	1.0344
315	4-6-25	3-21 to 4-24-25	739.0	5.93	3.98	5.24	.738	15.86	9.96	1.0361
331	11-24-24	11-8 to 12-12-24	727.3	5.93	4.50	4.73	.744	15.90	9.97	1.0350
331	2-23-25	2-7 to 3-13-25	521.3	5.94	4.32	4.90	.804	15.96	10.02	1.0342
270	5-2-22	4-15 to 5-19-22	590.3	5.95	3.98	5.23	.760	15.92	9.97	1.0346
301	1-5-25	12-20-24 to 1-16-25	463.6	5.98	4.49	4.53	.786	15.79	9.81	1.0340
297	11-12-23	10-27 to 11-30-23	853.4	5.98	4.54	4.75	.788	16.06	10.08	1.0355
315	3-2-25	2-14 to 3-20-25	778.5	5.99	4.12	5.11	.760	15.98	9.99	1.0353
272	5-21-23	5-5 to 6-8-23	455.3	5.99	4.33	4.94	.753	16.01	10.02	1.0351

TABLE 2.—COMPOSITION OF GUERNSEY MILK (Concluded)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
270	3-15-26	2-27 to 4-2-26	385.8	6.00	5.05	4.44	perct.	perct.	perct.	1.0361
270	1-17-22	12-31-21 to 2-3-22	789.0	6.02	3.75	4.47	.830	16.32	10.32	1.0340
272	4-16-23	3-31 to 5-4-23	705.2	6.02	4.18	5.00	.758	15.00	8.98	1.0345
270	10-27-24	10-11 to 11-14-24	316.1	6.02	4.60	4.83	.746	16.20	9.92	1.0339
270	11-30-25	11-14 to 12-18-25	473.3	6.03	5.16	4.63	.842	16.66	10.18	1.0374
331	3-30-25	3-14 to 4-17-25	508.7	6.04	4.31	4.96	.766	16.08	10.04	1.0349
270	5-24-26	5-8 to 6-11-26	412.7	6.08	4.78	4.88	.766	16.51	10.43	1.0316
315	10-30-25	10-10 to 11-13-25	476.2	6.10	4.34	5.21	.754	16.40	10.30	1.0355
270	11-15-26	10-30 to 12-3-26	287.3	6.11	5.09	4.61	.773	16.58	10.47	1.0344
270	10-23-22	10-7 to 11-10-22	389.4	6.12	4.78	4.78	.775	16.46	10.34	1.0355
271	4-5-27	3-19 to 4-22-27	260.3	6.12	5.16	4.55	.774	16.60	10.48	1.0355
270	8-18-24	8-2 to 9-5-24	421.4	6.15	4.14	4.89	.715	15.90	9.75	1.0330
301	7-21-25	7-4 to 8-7-25	329.2	6.25	5.06	4.72	.802	16.80	10.58	1.0276
270	8-2-26	7-17 to 8-20-26	346.2	6.25	4.82	4.68	.722	15.97	9.72	1.0303
270	10-26-25	10-10 to 11-13-25	503.2	6.25	4.32	4.80	.806	16.48	10.23	1.0368
270	3-1-27	2-5 to 3-18-27	293.5	6.27	5.05	4.71	.808	16.84	10.57	1.0332
270	2-21-22	2-4 to 3-10-22	665.9	6.28	3.73	4.86	.730	15.60	9.32	1.0340
267	1-24-24	1-5 to 2-8-24	290.8	6.28	4.40	4.78	.778	16.14	9.96	1.0336
270	10-11-26	9-25 to 10-29-26	245.1	6.28	4.50	4.60	.726	16.25	9.95	1.0327
315	1-4-26	11-14 to 12-18-25	523.1	6.30	4.29	4.93	.794	16.46	10.16	1.0341
315	12-7-25	9-2 to 10-6-22	428.7	6.34	4.52	4.85	.776	17.10	10.78	1.0357
270	6-28-26	6-12 to 7-16-26	425.3	6.37	4.67	5.23	.799	16.25	9.88	1.0313
301	9-13-26	8-28 to 10-1-26	268.1	6.40	5.05	4.55	.845	16.84	10.44	1.0355
303	12-22-24	1-1 to 2-8-24	349.8	6.42	3.95	5.13	.756	16.26	9.84	1.0351
270	5-24-24	4-23-27 to 5-13-27	672.8	6.43	4.52	4.37	.834	16.35	9.92	1.0345
270	5-9-27	4-23-27 to 5-13-27	167.1	6.44	4.99	4.21	.804	16.44	10.00	1.0335
297	1-24-24	1-5 to 2-8-24	393.3	6.48	4.68	4.41	.810	16.38	9.90	1.0334
270	1-4-26	12-19 to 25 to 1-22-26	423.4	6.50	4.40	5.14	.822	16.86	10.36	1.0338
270	2-8-26	1-23 to 2-26-26	395.0	6.50	4.93	4.82	.810	17.06	10.56	1.0368
267	8-14-22	7-29 to 9-1-22	505.1	6.52	4.64	5.04	.794	16.99	10.47	1.0344
331	1-19-25	1-10 to 2-6-25	397.3	6.56	4.34	4.92	.762	16.58	10.02	1.0338
271	11-27-22	11-10 to 12-8-22	213.6	6.60	5.10	4.83	.774	17.30	10.70	1.0359
270	3-2-25	2-20 to 3-20-25	761.9	6.62	4.13	4.75	.820	16.32	9.70	1.0336
270	9-6-26	8-21 to 9-24-26	262.2	6.63	4.51	4.46	.720	16.32	9.69	1.0297
270	12-1-24	11-13 to 12-12-24	147.8	6.68	4.92	4.58	.794	16.97	10.29	1.0347
267	9-18-22	9-2 to 10-6-22	216.3	6.78	5.19	5.08	.830	17.88	11.10	1.0359
270	12-20-26	12-4 to 26 to 1-7-27	283.4	6.84	4.96	4.82	.850	17.47	10.63	1.0341
270	1-24-27	1-8 to 2-4-27	221.8	6.86	5.45	4.37	.820	17.50	10.64	1.0318
301	4-16-23	3-31 to 5-4-23	576.2	6.93	4.13	5.04	.816	16.92	9.99	1.0326
270	11-27-22	11-11 to 12-8-22	222.2	7.06	4.98	4.78	.768	17.59	10.53	1.0354
270	10-23-22	10-7 to 11-10-22	373.7	7.37	4.70	4.88	.816	17.77	10.40	1.0359
303	1-26-25	1-10 to 2-6-25	150.7	7.64	4.72	4.67	.802	17.83	10.19	1.0330
297	12-17-23	12-1-23 to 1-4-24	499.8	7.66	4.86	4.54	.822	17.88	10.22	1.0327

TABLE 3.—COMPOSITION OF 268 SAMPLES OF MILK FROM 19 HOLSTEIN COWS
(2 lactations each of 6 cows and 1 each of 13 cows)

Cow No.	Date ¹	Time interval	Pounds ² of milk	Fat	Protein	Lactose ³	Ash	Total solids	Solids- ⁴ not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
273	5-14-23	4-28 to 6-1-23	1 346.5	2.60	2.98	5.12	.644	11.34	8.74	1.0323
290	2-21-22	2-4 to 3-10-22	931.8	3.26	3.26	5.00	.706	11.65	8.97	1.0340
302	3-5-23	2-17 to 3-23-23	1 855.5	2.69	2.81	5.23	.648	11.38	8.60	1.0320
273	3-5-23	2-17 to 3-23-23	1 510.5	2.71	2.81	4.94	.632	11.09	8.38	1.0314
273	8-27-23	8-11 to 9-14-23	740.8	2.72	2.94	4.86	.601	11.12	8.40	1.0298
298	2-18-24	1-25-24 to 3-7-24	2 746.3	2.73	3.58	4.83	.716	11.56	8.83	1.0325
290	3-28-22	3-11 to 4-14-22	1 958.5	2.77	2.98	5.71	.680	12.14	9.37	1.0319
273	1-29-23	1-13 to 2-16-23	1 568.2	2.77	3.08	4.61	.619	11.08	8.31	1.0309
263	12-26-22	12-9-22 to 1-12-23	2 642.9	2.80	2.84	4.49	.670	10.80	8.00	1.0298
302	4-9-23	3-24 to 4-27-23	1 943.6	2.80	2.91	5.23	.654	11.59	8.79	1.0335
273	4-9-23	3-24 to 4-27-23	1 458.9	2.80	2.94	4.88	.628	11.25	8.45	1.0319
288	12-10-23	11-24 to 12-28-23	1 957.8	2.80	3.15	5.10	.652	11.70	8.90	1.0326
304	10-23-22	10-7 to 8-10-23	1 718.6	2.83	3.12	5.06	.664	11.70	8.90	1.0325
252	6-18-23	6-2 to 7-6-23	1 806.3	2.84	3.08	4.51	.640	11.72	8.85	1.0325
302	8-11-24	7-26 to 8-26-24	1 701.3	2.84	3.26	5.13	.667	11.90	9.06	1.0328
254	9-14-23	4-28 to 6-1-23	1 416.8	2.86	3.02	4.97	.693	10.72	7.86	1.0293
263	8-21-23	4-28 to 6-1-23	2 827.9	2.90	2.88	4.60	.699	11.54	8.68	1.0332
302	8-27-23	8-11 to 9-14-23	1 744.6	2.91	3.20	5.19	.642	11.94	9.03	1.0318
288	3-24-24	3-8 to 4-11-24	1 884.0	2.92	3.28	5.14	.630	11.96	9.05	1.0335
290	1-17-22	12-31-21 to 2-3-22	2 781.7	2.93	3.12	5.18	.682	11.90	8.98	1.0340
273	11-20-22	10-21 to 12-1-22	2 560.4	2.93	2.92	4.91	.618	11.38	8.45	1.0318
311	8-4-24	7-19 to 8-22-24	1 165.6	2.93	2.97	5.17	.633	11.70	8.77	1.0314
254	2-21-22	2-4 to 3-10-22	1 541.1	2.94	2.46	4.75	.693	10.84	7.90	1.0301
254	3-12-23	2-24 to 3-30-23	2 280.5	2.94	3.00	4.67	.683	11.29	8.35	1.0312
273	7-23-23	7-7 to 8-10-23	869.5	2.94	3.02	4.88	.603	11.44	8.50	1.0310
288	1-14-24	12-29-23 to 2-1-24	2 009.3	2.94	3.18	5.10	.656	11.88	8.94	1.0330
298	12-26-22	12-9-22 to 1-12-23	1 648.1	2.94	3.82	4.70	.755	12.21	9.27	1.0324
254	5-2-22	4-15 to 5-19-22	1 323.4	2.95	2.44	4.87	.636	10.90	7.95	1.0290
273	6-18-23	6-21 to 7-6-23	1 043.3	2.96	2.92	4.64	.678	11.20	8.24	1.0304
325	7-7-24	6-21 to 7-25-24	1 744.6	2.96	3.21	4.94	.667	12.06	9.10	1.0312
290	5-2-22	4-15 to 5-19-22	744.8	2.96	3.30	5.40	.693	12.39	8.46	1.0330
632	2-28-22	2-14 to 3-20-22	566.8	3.01	3.36	4.43	.692	11.49	8.38	1.0340
1-29-23	1-13 to 2-16-23	3.01	3.36	4.43	.692	11.49	8.38	1.0312		
254	6-23-23	6-9 to 7-13-23	2 088.6	3.02	3.03	4.84	.679	12.04	9.03	1.0335
288	4-28-24	4-12 to 5-16-24	1 818.1	3.03	3.39	4.82	.630	11.50	8.48	1.0300
254	1-17-22	12-31-21 to 2-3-22	1 645.8	3.04	2.51	5.20	.667	12.29	9.26	1.0332
						4.60	.713	10.86	7.82	1.0292

¹The three-day composite sample was completed with the morning milk of the date given. ²Milk yield between the dates (inclusive) given in column 3. ³Total solids percent — (fat percent + protein percent + ash percent) = lactose percent. ⁴Total solids percent — fat percent = solids-not-fat percent.

TABLE 3.—COMPOSITION OF HOLSTEIN MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
632	11-15-21	11-1 to 12-5-21	997.9	3.04	3.25	4.66	.729	11.68	8.64	1.0324
263	6-18-23	6-2 to 7-6-23	2 296.2	3.05	3.10	4.52	.629	11.30	8.25	1.0301
273	12-26-22	12-2 to 22 to 1-12-23	2 124.9	3.06	3.10	5.06	.598	11.46	8.40	1.0308
251	4-9-23	3-24 to 4-27-23	1 755.5	3.06	3.00	4.87	.669	11.60	8.54	1.0327
324	8-18-24	8-2 to 9-5-24	1 910.9	3.06	3.10	5.13	.610	11.90	8.84	1.0317
254	5-14-23	4-28 to 6-1-23	1 643.9	3.06	3.12	4.79	.690	11.66	8.60	1.0319
251	7-30-23	7-14 to 8-17-23	1 921.6	3.06	3.23	4.56	.702	11.55	8.49	1.0311
251	8-27-23	8-11 to 9-14-23	1 337.2	3.07	3.04	4.65	.652	11.36	8.29	1.0291
254	2-5-23	1-20 to 2-23-23	2 375.6	3.08	3.08	4.56	.685	11.47	8.39	1.0309
325	10-20-24	10-4 to 11-7-24	1 570.3	3.08	3.32	5.07	.607	12.28	8.29	1.0331
302	5-26-24	5-10 to 6-13-24	1 261.9	3.09	3.37	5.00	.680	12.14	9.05	1.0330
254	1-5-23	12-16-22 to 1-10-23	2 409.2	3.10	3.01	4.54	.694	11.34	8.24	1.0316
288	7-7-24	6-21 to 7-25-24	1 706.4	3.10	3.30	5.19	.666	12.26	9.16	1.0326
324	10-27-24	10-11 to 11-14-24	1 581.8	3.10	3.32	5.04	.677	12.14	9.04	1.0326
251	7-23-23	7-7 to 8-10-23	1 794.3	3.12	3.42	5.05	.652	12.22	9.12	1.0332
254	12-13-21	11-23 to 12-30-21	1 773.2	3.13	3.43	4.41	.966	11.39	8.27	1.0291
288	8-11-24	7-26 to 8-29-24	1 433.7	3.13	3.08	4.64	.748	11.20	8.07	1.0302
251	3-5-23	2-17 to 3-23-23	1 840.1	3.13	3.47	4.99	.666	12.26	9.13	1.0326
325	6-30-24	6-14 to 7-18-24	1 228.3	3.14	2.92	4.88	.664	11.60	8.46	1.0313
251	7-23-23	7-17 to 8-20-24	1 870.1	3.14	3.19	5.37	.660	12.33	9.19	1.0336
263	7-23-23	7-10 to 8-10-23	1 929.0	3.14	3.16	4.46	.666	11.46	8.32	1.0294
311	9-8-24	8-23 to 9-26-24	1 945.4	3.14	3.24	4.90	.638	11.92	8.78	1.0317
295	6-25-23	6-9 to 7-13-23	1 119.9	3.14	3.40	4.88	.682	12.10	8.96	1.0322
325	3-24-24	3-14 to 4-11-24	1 082.0	3.15	2.28	4.91	.786	13.13	9.98	1.0368
251	12-26-22	12-9-22 to 1-12-23	1 796.9	3.16	2.98	5.06	.678	11.58	8.42	1.0309
254	11-27-22	11-11 to 12-15-22	2 482.0	3.16	2.94	4.62	.675	11.40	8.24	1.0317
254	4-16-23	3-31 to 5-4-23	2 192.3	3.16	3.05	4.66	.676	11.55	8.39	1.0315
200	9-18-22	9-2 to 10-6-22	1 671.2	3.17	3.04	4.57	.701	11.48	8.31	1.0303
298	3-24-24	3-8 to 4-11-24	2 189.9	3.17	3.36	4.81	.681	12.02	8.85	1.0325
253	5-2-22	4-15 to 5-19-22	834.0	3.18	2.64	4.78	.626	11.23	8.05	1.0293
250	12-10-23	11-24 to 12-28-23	577.6	3.18	2.64	4.74	.640	11.68	8.50	1.0306
295	7-30-23	7-14 to 8-17-23	917.2	3.18	3.64	4.88	.720	12.42	9.24	1.0322
324	6-9-24	5-24 to 6-27-24	2 354.7	3.19	3.10	5.20	.670	12.16	8.97	1.0319
302	6-30-24	6-14 to 7-18-24	743.6	3.20	3.04	5.05	.628	11.92	8.72	1.0318
302	11-5-23	10-20 to 11-23-23	1 573.9	3.20	3.34	5.07	.618	12.23	9.03	1.0339
295	1-2-23	12-16-22 to 1-19-23	1 319.6	3.21	3.56	4.66	.716	12.14	8.94	1.0336
253	2-21-22	2-4 to 3-10-22	1 396.9	3.21	2.64	5.09	.642	11.58	8.37	1.0301
263	4-9-23	3-24 to 4-27-23	2 457.6	3.22	3.03	4.56	.652	11.46	8.24	1.0309
295	9-18-22	9-3 to 10-6-22	1 550.6	3.22	3.14	5.28	.732	12.37	9.15	1.0316
253	1-17-22	12-31-21 to 2-3-22	1 445.8	3.24	2.73	5.17	.638	11.78	8.54	1.0317

TABLE 3.—COMPOSITION OF HOLSTEIN MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
263	1-29-23	1-13 to 2-16-23	2 556.3	3.24	2.86	4.62	.660	11.38	8.14	1.0301
324	5-5-24	4-19 to 5-23-24	2 406.2	3.24	3.14	5.18	.658	12.22	8.98	1.0339
288	2-18-24	2-2 to 3-7-24	1 946.2	3.24	3.16	5.11	.675	12.18	8.94	1.0336
200	1-5-23	12-16-22 to 1-19-23	1 501.1	3.24	3.18	4.46	.686	11.57	8.33	1.0313
322	5-5-24	4-19 to 5-23-24	1 589.7	3.24	3.45	5.01	.683	12.38	9.14	1.0333
632	5-10-22	4-25 to 5-29-22	387.2	3.25	3.46	4.52	.702	11.93	8.68	1.0304
296	1-29-23	1-13 to 2-16-23	1 432.5	3.25	4.04	4.69	.698	12.68	9.43	1.0341
324	7-14-24	6-28 to 8-1-24	2 059.9	3.26	2.90	5.19	.613	11.96	8.70	1.0320
251	1-29-23	1-13 to 2-16-23	1 881.5	3.26	3.04	4.85	.676	11.82	8.57	1.0327
254	9-3-23	8-18 to 9-21-23	1 933.7	3.26	3.20	4.66	.651	11.82	8.56	1.0305
302	10-1-23	9-15 to 10-19-23	1 675.2	3.26	3.24	5.11	.678	12.26	9.00	1.0320
263	3-28-22	3-11 to 4-14-22	778.2	3.27	2.86	4.75	.661	11.56	8.29	1.0288
257	3-28-22	3-11 to 4-14-22	2 009.4	3.27	3.38	5.25	.661	12.56	9.29	1.0341
302	4-21-24	4-5 to 5-9-24	1 277.0	3.27	3.39	5.19	.652	12.50	9.23	1.0339
632	12-20-21	12-6-21 to 1-9-22	846.9	3.27	3.44	4.65	.725	12.10	8.83	1.0325
200	11-27-22	11-11-22 to 12-15-22	1 607.5	3.28	3.02	4.65	.647	11.60	8.32	1.0317
322	2-25-24	2-9 to 3-14-24	1 705.9	3.28	3.35	5.09	.696	12.42	9.14	1.0329
200	10-23-22	10-7-22 to 11-10-22	1 655.6	3.30	2.86	4.56	.640	11.36	8.06	1.0302
254	10-8-23	9-22 to 10-26-23	1 503.1	3.30	3.14	4.44	.659	11.54	8.24	1.0310
251	11-5-23	10-20 to 11-23-23	594.2	3.30	3.22	4.64	.595	11.76	8.46	1.0311
273	11-5-23	10-20 to 11-23-23	541.7	3.30	3.24	4.65	.590	11.78	8.48	1.0303
257	12-13-21	12-2 to 12-30-21	1 660.2	3.30	3.30	4.69	.724	12.01	8.71	1.0343
298	4-28-24	4-26 to 5-9-24	829.3	3.30	3.42	4.96	.698	12.38	9.08	1.0330
325	9-15-24	8-30 to 10-3-24	1 617.8	3.30	3.50	5.17	.673	12.64	9.34	1.0338
298	2-1-23	1-13 to 2-16-23	1 526.7	3.31	3.78	4.58	.713	12.38	9.07	1.0359
288	2-12-23	2-24 to 3-30-23	1 706.8	3.33	3.52	5.03	.652	12.53	9.20	1.0339
325	4-28-24	4-12 to 5-16-24	1 888.6	3.34	3.92	5.32	.684	12.56	9.22	1.0338
302	12-10-23	11-24 to 12-28-23	1 428.4	3.34	3.55	5.09	.662	12.44	9.10	1.0331
230	3-24-24	3-8 to 4-8-22	461.0	3.34	3.44	4.83	.644	12.26	8.92	1.0327
288	9-18-22	9-2 to 10-6-22	861.0	3.34	3.49	5.35	.640	13.02	9.68	1.0334
325	11-24-24	11-8 to 12-13-24	1 532.3	3.34	3.66	5.03	.640	12.67	9.33	1.0334
254	7-10-22	6-24 to 7-28-22	351.0	3.34	3.83	4.65	.773	12.59	9.25	1.0321
251	6-18-23	6-2 to 7-6-23	1 404.6	3.35	3.16	4.81	.662	11.98	8.63	1.0314
298	8-4-24	7-19 to 8-22-24	1 735.5	3.36	3.27	4.93	.702	12.26	8.90	1.0320
324	9-22-24	9-6 to 10-10-24	1 860.3	3.36	3.28	5.12	.622	12.38	9.02	1.0323
297	1-17-22	12-31-21 to 2-3-22	2 295.2	3.36	3.30	4.85	.689	12.20	8.84	1.0340
255	5-21-23	5-5 to 6-8-23	1 225.5	3.36	3.42	4.85	.712	12.34	8.98	1.0328
632	1-23-22	1-10 to 2-13-22	706.1	3.37	3.35	4.62	.728	12.07	8.70	1.0330
263	8-27-23	8-11 to 9-14-23	1 826.3	3.38	3.26	4.55	.640	11.83	8.45	1.0296
632	4-4-22	3-21 to 4-24-22	481.3	3.38	3.36	4.74	.710	12.19	8.81	1.0325

TABLE 3.—COMPOSITION OF HOLSTEIN MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat perct.	Protein perct.	Lactose perct.	Ash perct.	Total solids perct.	Solids-not-fat perct.	Specific gravity
263	3-5-23	2-17 to 3-23-23	2 520.6	3.40	2.94	4.69		11.68	8.28	1.0308
250	4-9-23	3-24 to 4-27-23	1 157.9	3.40	3.12	5.02	.665	12.21	8.81	1.0326
250	5-14-23	4-28 to 6-1-23	1 128.3	3.40	3.14	4.96	.689	12.19	8.79	1.0324
298	3-5-23	2-17 to 3-23-23	1 392.2	3.40	3.36	4.96	.724	12.44	9.04	1.0328
250	1-14-24	12-29-23 to 2-1-24	1 552.9	3.42	3.30	4.81	.668	12.20	8.78	1.0320
298	5-14-23	4-28 to 6-1-23	1 048.5	3.42	3.38	5.17	.734	12.70	9.28	1.0333
298	11-20-22	11-4 to 12-8-22	1 825.4	3.42	3.44	5.08	.701	12.64	9.22	1.0337
200	4-16-23	3-31 to 4-7-23	1 100.7	3.44	3.13	4.22	.692	11.49	8.05	1.0297
200	6-23-23	6-9 to 7-13-23	1 703.5	3.44	3.30	4.12	.684	11.38	7.94	1.0278
322	8-18-24	8-5 to 9-5-24	1 374.9	3.44	3.66	4.96	.684	12.74	9.30	1.0330
257	11-12-23	3-11 to 4-14-22	1 677.8	3.46	3.22	5.00	.643	12.31	8.86	1.0311
253	3-28-22	3-11 to 4-14-22	1 232.6	3.46	2.58	5.46	.604	12.10	8.64	1.0311
263	12-13-21	11-27 to 12-30-21	1 042.6	3.46	2.94	4.60	.718	11.72	8.26	1.0307
250	3-5-23	2-17 to 3-23-23	1 132.3	3.46	3.15	4.82	.662	12.06	8.60	1.0311
200	2-5-23	1-20 to 2-23-23	1 359.1	3.46	3.20	4.45	.680	11.74	8.28	1.0312
273	10-1-23	9-15 to 10-19-23	1 496.0	3.46	3.20	4.72	.628	12.01	8.55	1.0302
322	6-9-24	5-24 to 6-27-24	1 551.5	3.48	3.51	4.99	.720	12.68	9.22	1.0332
257	12-17-23	12-1-23 to 1-4-24	1 644.4	3.48	3.51	5.08	.626	12.03	8.55	1.0313
325	12-20-24	12-13-24 to 1-2-25	1 918.2	3.48	3.96	4.83	.664	12.93	9.45	1.0352
322	1-24-24	1-11 to 2-8-24	854.5	3.49	4.30	4.88	.771	13.44	9.95	1.0366
295	9-3-23	8-18 to 9-21-23	784.0	3.50	3.36	4.73	.690	12.28	8.78	1.0303
322	3-31-24	3-15 to 4-18-24	1 641.0	3.50	3.52	4.93	.709	12.66	9.16	1.0338
288	4-16-23	3-31 to 5-4-23	710.3	3.50	3.62	4.98	.664	12.76	9.26	1.0339
325	1-19-25	1-3 to 2-6-25	1 481.1	3.50	3.64	5.06	.670	12.87	9.37	1.0351
296	4-9-23	3-24 to 4-27-23	1 176.5	3.50	3.84	5.05	.718	13.11	9.61	1.0354
363	6-12-22	5-30 to 7-3-22	1 338.9	3.50	3.86	5.06	.700	13.12	9.62	1.0356
200	5-21-23	5-5 to 6-8-23	283.5	3.51	3.58	4.68	.691	12.46	8.95	1.0315
263	7-10-22	6-24 to 7-28-22	588.5	3.52	3.38	4.30	.668	11.75	8.23	1.0296
295	3-12-23	2-24 to 3-30-23	981.2	3.52	3.40	4.68	.723	12.30	8.78	1.0301
322	7-14-24	6-28 to 8-1-24	1 491.3	3.52	3.40	5.04	.665	12.62	9.10	1.0324
298	11-27-22	11-11 to 12-15-22	1 252.9	3.52	3.63	4.91	.736	12.76	9.24	1.0338
325	2-23-25	2-7 to 3-13-25	854.7	3.52	3.59	5.05	.751	12.84	9.32	1.0335
254	12-17-23	12-1-23 to 1-4-24	1 361.0	3.54	3.72	5.06	.641	13.05	9.53	1.0344
298	6-30-24	6-14 to 7-18-24	1 872.3	3.54	3.30	4.61	.662	12.06	8.52	1.0322
254	6-7-22	5-20 to 6-23-22	619.8	3.54	3.38	5.00	.682	12.52	8.98	1.0333
200	3-12-23	2-24 to 3-30-23	1 317.4	3.55	3.12	4.47	.771	12.30	8.76	1.0333
257	6-0-24	4-12 to 6-7-24	2 668.6	3.56	3.16	4.94	.662	12.32	8.27	1.0310
295	2-5-23	1-20 to 2-23-23	1 262.8	3.56	3.36	4.91	.700	12.57	9.01	1.0345
324	2-23-25	2-7 to 3-13-25	1 522.7	3.56	3.55	4.93	.704	12.74	9.18	1.0338

TABLE 3.—COMPOSITION OF HOLSTEIN MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
298	7-23-23	7-7 to 8-10-23	934.1	3.57	3.28	5.08	.691	12.62	9.05	1.0319
324	2-23-24	2-22 to 3-14-24	1 143.4	3.39	4.02	4.87	.768	13.25	9.66	1.0340
250	12-26-22	12-8-22 to 1-12-23	1 328.9	3.60	3.14	4.98	.683	12.40	8.80	1.0329
237	5-2-22	4-15 to 5-19-22	2 078.0	3.60	3.50	5.14	.695	12.93	8.33	1.0329
254	11-12-23	10-27 to 11-30-23	1 115.2	3.61	3.34	4.48	.671	12.10	8.49	1.0308
298	5-26-24	6-10 to 6-13-24	1 963.7	3.61	3.44	4.89	.702	12.64	9.03	1.0328
237	7-14-24	6-28 to 8-1-24	887.9	3.62	3.14	4.84	.608	12.21	8.59	1.0310
250	1-20-23	1-13 to 2-16-23	1 163.6	3.62	3.19	4.74	.668	12.22	8.60	1.0308
324	3-31-24	3-15 to 4-18-24	1 196.7	3.62	3.32	5.03	.659	12.63	9.01	1.0334
250	4-28-24	4-9 to 5-13-24	379.9	3.62	3.36	5.00	.668	12.65	9.03	1.0320
295	4-16-23	3-31 to 5-4-23	1 223.6	3.62	3.57	4.83	.718	12.74	9.12	1.0329
250	6-18-23	6-2 to 7-6-23	993.4	3.63	2.95	5.19	.626	12.40	8.77	1.0324
263	6-7-22	5-20 to 6-23-22	692.9	3.63	3.08	4.63	.724	12.06	8.43	1.0283
253	12-13-21	11-26 to 12-30-21	1 324.3	3.64	2.68	5.18	.680	12.18	8.54	1.0328
250	2-18-24	2-2 to 3-7-24	547.7	3.64	3.32	4.84	.680	12.48	8.84	1.0321
237	6-7-22	5-20 to 6-23-22	1 951.7	3.64	3.48	5.09	.710	12.92	9.28	1.0337
324	1-19-25	1-10 to 2-6-25	1 308.7	3.64	3.62	4.94	.639	12.84	9.20	1.0348
237	8-18-24	8-2 to 9-5-24	695.7	3.65	3.22	4.75	.648	12.27	8.62	1.0313
298	9-8-24	8-23 to 9-26-24	1 583.7	3.65	3.62	4.86	.680	12.81	9.16	1.0322
298	4-21-24	4-12 to 4-25-24	806.1	3.66	3.26	4.94	.660	12.52	8.86	1.0318
273	9-18-22	9-2 to 10-20-22	2 947.6	3.66	3.35	5.09	.686	12.79	9.13	1.0319
324	12-1-24	11-15 to 12-19-24	1 741.9	3.66	3.44	5.11	.608	12.82	9.16	1.0321
263	5-2-22	4-15 to 5-19-22	832.4	3.68	3.02	4.74	.680	12.12	8.44	1.0297
200	7-30-23	7-14 to 8-13-23	443.9	3.68	3.18	4.08	.642	11.58	7.90	1.0268
250	10-1-23	9-15 to 10-19-23	512.2	3.71	3.34	3.96	.668	11.68	7.97	1.0277
295	10-23-22	10-7 to 11-10-22	1 339.7	3.72	3.10	4.86	.698	12.38	8.66	1.0324
311	10-13-24	9-27 to 10-31-24	1 797.3	3.72	3.25	5.05	.560	12.58	8.86	1.0321
298	6-15-23	6-2 to 7-6-23	1 035.3	3.72	3.36	4.88	.695	12.60	8.94	1.0330
302	3-17-24	3-1 to 4-4-24	1 182.1	3.72	3.52	5.06	.673	12.97	9.25	1.0323
237	2-21-22	2-4 to 3-10-22	2 194.9	3.73	3.34	4.73	.692	12.50	8.77	1.0341
298	8-27-23	8-11 to 9-14-23	851.4	3.74	3.52	5.11	.662	13.06	9.32	1.0328
324	1-5-25	12-20-24 to 1-9-25	967.9	3.74	3.56	5.02	.660	12.98	9.24	1.0332
298	1-5-23	12-16-22 to 1-19-23	812.6	3.74	4.01	4.78	.689	13.22	9.48	1.0346
288	4-9-23	3-24 to 4-27-23	1 229.0	3.76	3.48	4.90	.703	12.84	9.08	1.0340
288	2-5-23	1-20 to 2-23-23	776.4	3.76	3.74	4.90	.654	13.05	9.29	1.0342
257	10-23-22	10-7 to 11-10-22	1 648.0	3.76	3.86	4.97	.707	13.30	9.54	1.0340
295	11-27-22	11-11 to 12-15-22	1 307.3	3.78	3.33	4.72	.688	12.52	8.74	1.0332
237	3-31-24	3-15 to 4-11-24	1 137.0	3.80	3.20	5.00	.602	12.60	8.80	1.0325
296	12-26-22	12-9-22 to 1-12-23	1 463.9	3.80	3.46	4.78	.698	12.74	8.94	1.0324
295	10-8-23	9-22 to 10-26-23	557.2	3.80	3.55	4.59	.696	12.64	8.84	1.0321

TABLE 3.—COMPOSITION OF HOLSTEIN MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat perct.	Protein perct.	Lactose perct.	Ash perct.	Total solids perct.	Solids-not-fat perct.	Specific gravity
251	10-1-23	9-15 to 10-19-23	473.4	3.80	3.90	4.70	7.26	13.13	9.33	1.0327
263	1-17-22	12-31-21 to 2-3-22	870.8	3.81	2.88	4.55	7.34	11.97	8.16	1.0310
250	7-23-23	7-7 to 8-10-23	788.6	3.82	2.94	4.83	6.47	12.24	8.42	1.0288
286	5-21-23	5-5 to 6-8-23	643.7	3.82	3.37	5.08	6.55	12.92	9.10	1.0328
263	10-1-23	9-15 to 10-19-23	1 647.6	3.82	3.63	4.51	6.84	12.64	8.82	1.0309
288	9-15-24	8-30 to 10-3-24	1 355.1	3.82	3.72	5.14	6.60	13.34	9.52	1.0338
257	2-25-24	2-9 to 3-14-24	1 511.0	3.84	3.24	5.00	6.48	12.76	8.92	1.0330
288	8-14-22	7-29 to 9-1-22	941.0	3.84	3.60	5.15	6.48	13.15	9.31	1.0323
311	5-26-24	5-16 to 6-13-24	1 057.9	3.85	3.52	5.15	7.28	13.34	9.50	1.0331
251	11-20-22	11-4 to 12-8-22	1 705.9	3.85	2.88	4.86	6.51	12.04	8.19	1.0314
288	10-13-24	9-27 to 10-31-24	1 387.5	3.85	3.72	4.90	6.68	13.14	9.29	1.0332
298	6-25-23	6-9 to 7-13-23	501.7	3.86	3.30	5.07	6.90	12.52	8.66	1.0336
250	8-27-23	8-11 to 9-14-23	418.8	3.88	3.38	4.51	6.50	12.42	8.54	1.0290
288	10-20-24	10-4 to 11-7-24	1 183.7	3.88	3.84	5.04	6.68	13.43	9.55	1.0335
324	3-30-25	3-14 to 4-17-25	1 162.9	3.89	3.64	4.87	6.61	13.06	9.17	1.0336
288	10-23-22	10-7 to 11-10-22	811.2	3.90	3.70	4.97	6.62	13.23	9.33	1.0334
322	9-22-24	9-6 to 10-10-24	1 233.0	3.90	3.73	5.12	7.15	13.46	9.86	1.0335
250	11-20-22	11-4 to 12-8-22	1 870.7	3.92	2.99	4.85	6.64	12.42	8.90	1.0321
251	11-5-23	10-20 to 11-16-23	148.8	3.92	4.08	4.74	6.76	13.42	9.80	1.0335
322	10-27-24	10-11 to 11-14-24	981.2	3.93	4.12	4.97	7.22	13.74	9.81	1.0348
263	12-17-23	12-1-23 to 1-4-24	463.1	3.94	3.70	4.74	6.88	13.07	9.13	1.0319
263	2-18-24	2-2 to 3-7-24	796.6	3.94	3.76	4.30	7.15	12.71	8.77	1.0306
257	1-24-24	1-5 to 2-8-24	1 593.5	3.96	3.10	5.16	6.70	12.89	8.93	1.0332
254	2-21-22	2-4 to 3-10-22	660.2	3.97	3.61	4.63	7.36	12.94	8.98	1.0323
263	8-27-23	8-11 to 9-14-23	772.1	3.97	3.03	4.51	6.92	12.20	8.23	1.0310
257	7-10-22	6-24 to 7-28-22	506.8	3.98	3.58	5.29	6.80	13.53	9.55	1.0323
273	12-10-23	11-24 to 12-21-23	1 718.5	4.00	3.50	5.02	7.00	13.22	9.22	1.0329
257	9-18-22	9-2 to 10-6-22	211.1	4.02	3.78	4.39	6.64	12.85	8.83	1.0313
263	3-24-24	3-8 to 4-11-24	401.0	4.03	3.54	5.24	6.54	13.46	9.43	1.0340
302	1-14-24	12-29-23 to 2-8-24	666.1	4.03	3.86	4.01	6.54	12.55	8.52	1.0301
296	5-14-23	4-28 to 6-1-23	1 254.2	4.05	3.33	5.16	6.66	13.21	9.16	1.0324
288	7-10-22	6-24 to 7-28-22	770.4	4.07	4.06	5.01	7.56	13.90	9.83	1.0352
254	2-25-24	2-9 to 3-7-24	178.0	4.11	4.02	5.41	7.12	14.22	10.14	1.0343
254	11-12-23	10-27 to 11-30-23	517.0	4.11	4.18	4.46	7.02	13.54	9.43	1.0366
257	8-14-22	7-29 to 9-2-22	1 547.1	4.13	3.74	4.75	7.02	13.32	9.19	1.0319
324	5-4-25	4-18 to 5-22-25	918.1	4.16	3.70	5.07	6.74	13.26	9.10	1.0322
257	11-27-22	11-11 to 12-15-22	1 453.0	4.18	3.70	4.92	6.64	13.46	9.28	1.0333
257	1-5-23	12-16-22 to 1-19-23	1 193.0	4.24	3.88	4.84	6.76	13.64	9.40	1.0334
257	9-3-23	8-18 to 9-7-23	65.7	4.24	3.92	4.80	7.06	13.63	9.39	1.0328
257	2-5-23	1-20 to 2-23-23	1 152.6	4.26	5.06	3.99	7.06	14.02	9.76	1.0344
				4.28	3.81	4.85	.668	13.61	9.33	

TABLE 3.—COMPOSITION OF HOLSTEIN MILK (Concluded)

Cow No.	Date	Time interval	Pounds of milk	Fat perct.	Protein perct.	Lactose perct.	Ash perct.	Total solids perct.	Solids-not-fat perct.	Specific gravity
263	1-14-24	12-20-23 to 2-1-24	749.0	4.30	3.82	4.39	.702	13.21	8.91	1.0308
200	9-3-23	8-18 to 9-21-23	273.4	4.32	3.36	4.26	.679	12.62	8.30	1.0291
322	4-6-25	3-21 to 4-24-25	539.2	4.32	4.08	4.85	.714	13.96	9.64	1.0338
257	4-16-23	3-31 to 5-4-23	1 069.5	4.33	3.78	4.99	.680	13.78	9.45	1.0340
296	6-18-23	6-2 to 7-6-23	1 394.2	4.34	3.72	4.90	.704	13.66	9.32	1.0328
298	11-17-24	11-1 to 12-4-24	1 147.0	4.34	4.01	4.84	.685	13.88	9.54	1.0346
257	3-12-23	2-24 to 3-30-23	1 095.1	4.35	3.78	5.02	.682	13.83	9.48	1.0338
288	7-30-23	7-14 to 8-17-23	267.7	4.37	4.44	5.02	.771	14.60	10.23	1.0345
295	1-24-24	1-5 to 2-8-24	379.4	4.38	3.91	4.64	.728	13.66	9.28	1.0331
257	5-21-23	5-5 to 6-8-23	953.2	4.45	3.80	4.95	.680	13.88	9.43	1.0334
257	6-25-23	6-9 to 7-13-23	727.8	4.49	3.90	5.07	.682	14.14	9.65	1.0332
257	7-30-23	7-14 to 8-17-23	287.5	4.52	4.80	4.79	.797	14.91	10.39	1.0342
296	7-23-23	7-7 to 8-10-23	524.0	4.54	3.77	5.05	.689	14.05	9.51	1.0327
298	10-1-23	9-15 to 10-19-23	412.6	4.55	4.93	5.13	.832	15.44	10.89	1.0370
257	9-22-24	9-6 to 10-10-24	321.3	4.68	3.72	4.26	.623	13.28	8.60	1.0313
322	5-11-25	4-25 to 5-29-25	434.0	4.68	3.80	4.91	.686	14.08	9.40	1.0304
322	12-1-24	11-15 to 12-19-24	1 054.0	4.70	4.40	4.97	.726	14.80	10.10	1.0347
322	1-26-25	1-22 to 2-16-25	467.5	4.74	4.38	4.89	.734	14.74	10.00	1.0344
322	1-5-25	12-20-24 to 1-21-25	723.7	5.14	4.47	4.82	.731	15.16	10.02	1.0347
263	11-5-23	10-20 to 11-23-23	1 151.0	5.15	3.98	4.53	.680	14.34	9.19	1.0310
296	10-1-23	9-15 to 10-12-23	211.9	5.18	5.31	4.84	.793	16.12	10.94	1.0361
322	3-2-25	2-17 to 3-20-25	534.0	5.20	4.14	4.88	.750	15.05	9.77	1.0340
298	11-5-23	10-20 to 11-23-23	254.8	5.30	5.29	4.89	.809	16.29	10.99	1.0369
288	9-3-23	8-18 to 9-7-23	106.8	5.34	5.60	4.73	.852	16.52	11.18	1.0366
263	12-10-23	11-24 to 12-28-23	600.7	5.64	4.36	4.42	.760	15.18	9.54	1.0322
298	12-10-23	11-24 to 12-28-23	123.4	5.72	6.48	4.56	.864	17.62	11.90	1.0385
288	11-24-24	11-8 to 12-12-24	378.6	6.00	4.88	4.66	.794	16.33	10.33	1.0367

TABLE 4.—COMPOSITION OF 199 SAMPLES OF MILK FROM 15 JERSEY COWS
(3 lactations of 1 cow, 2 each of 5 cows, and 1 each of 9 cows)

Cow No.	Date ¹	Time interval	Pounds ² of milk	Fat	Protein	Lactose ³	Ash	Total solids	Solids ⁴ not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
333	2-15-26	1-30 to 3-5-26	455.1	3.28	3.22	3.67	.789	10.96	7.68	1.0240
333	11-24-24	11-14 to 12-12-24	1 114.0	3.61	4.10	4.49	.698	12.90	9.29	1.0337
279	1-26-25	1-24 to 1-30-25	4.4	3.62	4.67	3.35	.742	12.38	8.76	1.0317
333	5-31-26	5-15 to 6-4-26	77.0	3.68	3.52	3.80	.723	11.72	8.04	1.0246
333	1-11-26	12-26 to 1-29-26	553.6	3.70	3.49	3.75	.682	11.62	7.92	1.0288
333	12-10-25	11-21 to 12-25-25	665.9	3.79	3.70	4.32	.801	12.61	8.82	1.0290
336	11-24-24	11-22 to 12-12-24	476.5	3.83	4.20	4.84	.714	13.58	9.75	1.0337
333	4-26-26	4-10 to 5-14-26	290.3	3.88	3.18	4.34	.670	12.07	8.19	1.0310
279	8-18-24	8-2 to 9-5-24	584.6	3.91	3.78	5.13	.681	13.50	9.59	1.0345
336	12-30-24	12-13 to 2-4-25	764.7	3.92	3.44	5.23	.696	13.29	9.37	1.0347
279	7-15-26	6-19 to 7-9-26	62.1	3.92	4.21	4.09	.740	12.96	9.04	1.0272
305	7-14-24	6-28 to 8-1-24	700.1	3.93	3.67	5.09	.650	13.34	9.41	1.0331
305	9-30-24	9-14 to 7-18-24	1 244.5	3.94	3.06	5.08	.664	12.74	8.80	1.0314
305	7-18-25	7-4 to 8-7-25	984.0	3.95	3.44	5.08	.652	13.12	9.17	1.0332
305	8-4-24	7-19 to 8-22-24	1 108.3	4.02	2.93	5.20	.680	12.80	8.78	1.0312
333	3-22-26	3-6 to 4-9-26	320.7	4.03	3.30	4.77	.696	12.26	8.23	1.0280
333	6-15-25	5-30 to 7-3-25	416.8	4.04	3.78	4.77	.654	13.27	9.15	1.0312
333	8-17-25	7-25 to 9-4-25	1 100.9	4.12	3.34	5.16	.626	12.90	8.74	1.0312
333	6-8-25	5-23 to 6-26-25	1 277.6	4.16	3.16	4.95	.640	13.04	8.82	1.0312
333	7-13-25	6-27 to 7-24-25	889.9	4.22	3.14	5.04	.716	13.32	9.08	1.0334
313	11-17-24	11-2 to 12-5-24	715.8	4.24	3.50	4.86	.668	13.80	9.55	1.0341
299	3-30-25	3-7 to 4-17-25	1 285.6	4.25	3.62	5.26	.730	13.78	9.53	1.0342
333	9-21-25	9-5 to 9-25-25	1 403.5	4.25	3.82	4.98	.738	14.01	9.73	1.0364
317	3-24-24	3-8 to 4-4-24	1 126.9	4.28	3.86	5.13	.738	14.07	9.73	1.0364
314	11-5-23	10-19 to 11-23-23	1 372.4	4.28	4.00	5.05	.736	14.01	9.73	1.0364
299	6-8-25	5-23 to 6-26-25	927.8	4.32	3.67	5.01	.690	13.69	9.37	1.0334
341	8-17-25	8-1 to 9-4-25	767.7	4.32	3.80	5.44	.698	14.26	9.94	1.0346
334	8-21-25	8-8 to 9-4-25	799.1	4.32	3.82	5.00	.717	13.86	9.54	1.0347
327	9-22-24	9-6 to 10-10-24	651.6	4.35	3.72	5.32	.652	14.04	9.69	1.0321
299	5-4-25	4-18 to 5-22-25	1 037.0	4.38	3.70	5.30	.678	14.06	9.68	1.0350
333	5-4-25	4-18 to 5-22-25	1 369.1	4.40	3.70	5.30	.660	13.35	8.95	1.0325
341	7-13-25	6-27 to 7-31-25	775.2	4.41	3.52	5.29	.672	13.89	9.48	1.0333
305	9-8-24	8-23 to 9-26-24	1 000.8	4.42	3.57	4.99	.680	13.66	9.24	1.0323
313	7-14-24	6-28 to 8-1-24	689.7	4.42	3.66	4.85	.753	13.60	9.18	1.0326
305	5-11-25	4-25 to 5-29-25	637.8	4.45	3.72	4.82	.738	13.74	9.29	1.0336
314	12-29-24	12-13 to 2-4 to 1-16-25	453.2	4.45	4.10	4.88	.738	14.17	9.72	1.0334
334	6-15-25	5-30 to 7-3-25	1 064.7	4.48	3.41	5.48	.695	14.07	9.59	1.0337

¹The three-day composite sample was completed with the morning milking of the date given. ²Milk yield between the dates (inclusive) given in column 3. ³Total solids percent — (fat percent + protein percent + ash percent). ⁴Total solids percent — fat percent = solids-not-fat percent.

TABLE 4.—COMPOSITION OF JERSEY MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
333	2-23-25	2-7 to 3-13-25	1 573.9	4.50	3.32	5.00	.675	13.50	9.00	1.0337
341	9-21-25	9-5 to 10-9-25	1 722.5	4.50	3.56	5.30	.684	14.04	9.54	1.0332
333	12-20-24	12-13-24 to 1-9-25	1 616.5	4.51	3.37	4.94	.658	13.48	8.97	1.0344
333	1-19-25	1-10 to 2-6-25	1 619.0	4.52	3.40	4.76	.670	13.35	8.83	1.0313
299	2-23-25	2-1 to 3-6-25	998.3	4.52	3.48	5.18	.725	14.18	9.66	1.0352
305	6-8-25	5-30 to 6-19-25	374.3	4.52	3.88	4.90	.658	13.96	9.44	1.0330
314	12-10-23	11-24 to 12-28-23	1 331.3	4.53	3.94	4.96	.704	14.12	9.60	1.0340
279	3-31-24	3-15 to 4-18-24	1 887.3	4.53	3.93	5.00	.677	14.14	9.61	1.0340
334	4-6-25	3-21 to 4-24-25	1 148.9	4.55	3.97	5.00	.747	14.69	10.14	1.0355
313	8-18-24	8-2 to 8-21-24	234.1	4.58	4.24	4.88	.689	14.39	9.81	1.0337
313	4-19-26	4-3 to 5-7-26	630.9	4.59	3.10	5.32	.678	13.69	9.10	1.0333
279	5-5-24	4-19 to 5-23-24	892.4	4.60	3.92	5.01	.705	14.23	9.63	1.0336
327	8-18-24	8-2 to 9-5-24	813.9	4.62	3.37	5.25	.660	13.90	9.28	1.0330
305	10-13-24	9-27 to 10-31-24	875.2	4.62	3.71	4.93	.635	13.90	9.28	1.0323
327	6-28-26	6-12 to 7-16-26	547.5	4.63	3.47	4.95	.694	13.74	9.11	1.0298
336	2-23-25	2-7 to 3-13-25	677.1	4.63	3.54	5.18	.708	14.06	9.43	1.0337
317	7-13-25	6-27 to 7-31-25	495.2	4.64	3.18	5.21	.643	13.67	9.03	1.0318
341	5-4-25	4-18 to 5-22-25	863.7	4.64	3.36	5.47	.712	14.18	9.54	1.0331
313	10-8-23	9-22 to 10-26-23	1 458.0	4.66	3.42	4.91	.673	13.66	9.00	1.0327
303	5-26-24	5-13 to 6-13-24	1 057.8	4.66	3.45	5.25	.715	14.08	9.42	1.0327
336	6-8-25	5-23 to 6-26-25	698.3	4.68	3.38	5.13	.667	13.86	9.18	1.0325
313	1-26-25	1-10 to 2-13-25	692.1	4.68	3.53	4.93	.680	13.72	9.04	1.0332
327	5-24-26	5-8 to 6-11-26	693.3	4.68	3.74	5.03	.698	14.06	9.38	1.0311
347	9-28-25	9-12 to 10-9-25	343.3	4.71	3.85	5.36	.678	14.60	9.89	1.0344
279	12-17-23	12-1 to 1-4-24	1 118.7	4.73	3.54	5.12	.690	14.08	9.35	1.0336
336	3-30-25	3-14 to 4-17-25	624.1	4.75	3.46	5.23	.703	14.14	9.39	1.0338
349	5-31-26	5-15 to 6-4-26	62.2	4.76	3.98	4.09	.731	13.56	8.80	1.0278
341	3-30-25	3-14 to 4-17-25	825.6	4.82	3.36	5.53	.707	14.42	9.60	1.0320
336	8-17-25	8-1 to 9-4-25	549.4	4.82	3.81	5.31	.680	14.62	9.80	1.0338
313	5-5-24	4-19 to 5-23-24	1 034.9	4.82	4.08	4.78	.714	14.39	9.57	1.0336
336	7-13-25	6-27 to 7-31-25	563.8	4.83	3.41	5.20	.680	14.12	9.29	1.0319
313	2-8-26	1-23 to 2-26-26	997.3	4.84	3.06	5.13	.650	13.68	8.84	1.0318
279	6-9-24	5-24 to 6-27-24	784.5	4.85	3.96	5.12	.710	14.64	9.79	1.0337
327	12-7-25	11-7 to 12-18-25	1 015.7	4.86	3.69	4.85	.725	14.12	9.26	1.0337
334	9-25-25	9-5 to 10-9-25	871.6	4.86	4.12	4.91	.680	14.57	9.71	1.0343
279	9-22-24	9-6 to 10-10-24	479.5	4.86	4.39	4.86	.692	14.80	9.94	1.0363
313	4-6-25	3-21 to 4-24-25	795.1	4.88	3.58	4.89	.706	14.06	9.18	1.0332
313	3-2-25	2-14 to 3-20-25	859.2	4.88	3.70	4.92	.702	14.20	9.32	1.0344
317	8-17-25	8-1 to 9-4-25	435.2	4.88	3.78	4.96	.686	14.31	9.43	1.0323
305	11-17-24	11-1 to 12-5-24	838.7	4.89	4.11	4.91	.685	14.59	9.70	1.0350

TABLE 4.—COMPOSITION OF JERSEY MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
341	6-8-25	5-23 to 6-26-25	813.9	4.90	3.40	5.23	.684	14.21	9.31	1.0324
279	10-11 to 11-14-24		445.5	4.91	4.20	4.83	.708	14.65	9.31	1.0343
293	8-4-24	7-19 to 8-22-24	547.4	4.93	3.56	4.94	.667	14.10	9.17	1.0321
299	8-24-25	8-8 to 9-11-25	607.9	4.93	3.83	5.35	.709	14.82	9.89	1.0345
336	1-19-25	1-10 to 2-6-25	528.4	4.94	3.54	5.34	.702	14.52	9.58	1.0348
333	3-30-25	3-14 to 4-17-25	1 389.5	4.96	3.23	5.34	.663	13.78	8.82	1.0319
336	5-4-25	4-18 to 5-22-25	581.5	4.96	3.48	5.16	.702	14.30	9.34	1.0329
313	6-9-24	5-24 to 6-27-24	872.1	5.01	4.04	4.81	.716	14.58	9.57	1.0327
327	1-4-26	12-19-25 to 1-22-26	900.2	5.02	3.58	5.04	.683	14.32	9.30	1.0328
279	2-25-24	2-9 to 3-14-24	894.4	5.04	4.07	4.91	.724	14.72	9.70	1.0347
327	7-14-24	6-28 to 8-1-24	847.8	5.04	3.21	5.09	.616	13.96	8.92	1.0312
305	1-26-25	1-10 to 2-13-25	671.2	5.05	4.09	4.66	.702	14.50	9.45	1.0331
341	10-26-25	10-10 to 11-13-25	640.9	5.06	3.92	5.14	.722	14.84	9.78	1.0362
327	5-5-24	5-1 to 5-23-24	568.6	5.06	4.32	4.94	.736	15.06	10.00	1.0329
305	3-2-25	2-14 to 3-20-25	743.7	5.07	4.04	4.76	.729	14.60	9.53	1.0344
299	5-31-26	5-15 to 6-18-26	244.5	5.09	4.16	4.47	.706	14.43	9.34	1.0310
327	7-13-25	6-27 to 7-31-25	501.0	5.10	3.98	5.09	.672	14.84	9.74	1.0333
327	5-4-25	4-18 to 5-22-25	545.9	5.10	4.00	4.96	.704	14.76	9.66	1.0337
314	1-26-25	1-17 to 2-13-25	295.1	5.10	4.02	4.78	.714	14.61	9.51	1.0328
327	2-8-26	1-23 to 2-26-26	800.0	5.12	3.42	5.29	.694	14.52	9.30	1.0335
327	8-2-26	7-17 to 8-21-26	598.5	5.13	3.82	4.56	.680	13.46	8.33	1.0280
290	3-22-26	3-6 to 4-9-26	334.1	5.14	3.74	4.37	.710	13.96	8.82	1.0346
352	12-7-25	12-1 to 12-25-25	1 237.9	5.15	3.83	5.00	.800	15.84	10.70	1.0316
313	12-17-23	12-1 to 12-17-23	503.4	5.16	3.89	5.06	.716	14.26	9.56	1.0316
313	5-24-26	5-8 to 6-17-26	862.1	5.17	3.59	5.06	.630	14.45	9.28	1.0288
299	7-21-25	6-26 to 8-1-25	708.7	5.20	3.73	5.38	.628	14.94	9.74	1.0337
313	3-15-26	2-27 to 4-2-26	853.7	5.21	3.29	5.00	.622	14.12	8.91	1.0306
313	9-11-25	4-25 to 5-29-25	590.7	5.21	3.56	4.78	.638	14.19	8.98	1.0321
317	8-21-25	9-5 to 10-9-25	324.4	5.21	3.79	5.04	.659	14.70	9.49	1.0323
317	8-4-24	7-19 to 8-22-24	714.8	5.22	4.04	4.99	.742	14.99	9.77	1.0360
327	4-19-26	4-3 to 5-7-26	715.8	5.22	3.27	5.20	.652	14.36	9.12	1.0339
305	4-6-25	3-21 to 4-24-25	678.4	5.25	3.68	5.08	.708	14.72	9.47	1.0338
299	1-11-26	12-26-25 to 1-29-26	473.1	5.26	4.18	5.00	.717	15.16	9.90	1.0341
279	3-20-24	1-5 to 2-8-24	980.0	5.26	3.72	5.00	.703	14.68	9.42	1.0345
327	8-24-25	3-14 to 4-17-25	556.0	5.27	3.91	5.04	.682	14.90	9.63	1.0345
293	6-30-24	6-14 to 7-18-24	579.7	5.28	3.46	5.18	.645	14.56	9.28	1.0327
327	2-23-25	1-31 to 3-13-25	679.9	5.28	4.07	5.12	.766	15.24	9.96	1.0352
313	11-12-23	10-27 to 11-30-23	1 372.1	5.29	3.79	4.84	.697	14.62	9.33	1.0330
314	7-13-25	6-27 to 7-31-25	291.4	5.30	3.88	4.66	.710	14.55	9.25	1.0327

TABLE 4.—COMPOSITION OF JERSEY MILK (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				percl.	percl.	percl.	percl.	percl.	percl.	
317	5-4-25	4-18 to 5-22-25	859.6	5.32	3.07	5.42	.706	14.52	9.20	1.0319
341	1-4-26	12-18-25 to 1-22-26	630.5	5.32	3.86	5.29	.686	15.16	9.84	1.0332
317	2-18-24	2-8 to 3-7-24	1 069.3	5.33	4.64	5.04	.806	15.82	10.49	1.0363
317	3-30-25	3-7 to 4-7-25	1 142.3	5.34	3.45	5.26	.700	14.75	9.41	1.0346
314	9-21-25	9-5 to 10-9-25	281.1	5.35	3.66	4.74	.638	14.38	9.04	1.0315
341	2-8-26	1-23 to 2-26-26	610.6	5.35	3.90	5.36	.714	15.32	9.97	1.0330
299	12-10-25	10-31 to 12-25-25	494.0	5.35	4.06	5.10	.746	15.26	9.91	1.0338
341	11-30-25	11-13 to 12-18-25	646.2	5.36	4.11	5.04	.715	15.23	9.87	1.0366
313	1-24-24	1-5 to 2-8-24	1 095.0	5.36	4.14	4.71	.725	14.93	9.57	1.0346
317	6-30-24	6-14 to 7-18-24	919.5	5.36	4.24	5.02	.736	15.36	10.00	1.0348
327	6-8-25	5-23 to 6-26-25	567.1	5.37	3.89	5.03	.671	14.96	9.59	1.0335
279	12-1-24	11-15 to 12-19-24	255.2	5.38	4.94	4.36	.742	15.42	10.04	1.0346
317	6-8-25	5-23 to 6-26-25	685.1	5.41	3.00	5.48	.632	14.52	9.11	1.0312
313	12-22-24	12-6-24 to 1-9-25	946.6	5.42	3.43	5.05	.678	14.58	9.16	1.0346
313	7-13-25	7-4 to 7-31-25	189.6	5.42	3.92	4.44	.656	14.44	9.02	1.0313
327	10-27-24	10-11 to 11-14-24	667.8	5.42	4.06	4.97	.692	15.14	9.72	1.0334
347	10-26-25	10-10 to 11-13-25	446.5	5.43	3.99	5.28	.680	15.38	9.95	1.0358
293	9-8-24	8-23 to 9-12-24	300.9	5.45	3.74	4.91	.632	14.73	9.28	1.0318
327	2-25-24	2-9 to 3-14-24	968.0	5.46	3.18	5.38	.682	14.70	9.24	1.0313
313	6-9-24	5-24 to 6-27-24	1 027.3	5.46	4.20	4.91	.714	15.28	9.82	1.0340
313	3-31-24	3-15 to 4-18-24	934.0	5.47	4.18	4.63	.698	14.98	9.51	1.0330
314	4-6-25	3-21 to 4-24-25	316.0	5.50	3.90	4.90	.762	15.06	9.56	1.0340
314	8-17-25	8-1 to 9-4-25	316.2	5.51	3.92	4.98	.690	15.10	9.59	1.0316
299	4-26-26	4-10 to 5-14-26	321.9	5.52	3.72	5.23	.652	15.12	9.60	1.0341
317	5-26-24	5-10 to 6-13-24	1 006.7	5.52	4.25	5.09	.756	15.62	10.10	1.0349
327	12-1-24	11-15 to 12-19-24	628.8	5.53	4.20	4.92	.689	15.34	9.61	1.0354
317	4-21-24	4-5 to 5-9-24	1 171.7	5.57	4.26	5.15	.740	15.72	10.15	1.0354
279	1-25-25	12-30-24 to 1-23-25	1 113.8	5.58	4.30	4.45	.739	15.06	9.48	1.0331
314	1-14-24	12-29-23 to 2-1-24	1 195.0	5.60	4.12	4.60	.742	15.34	9.74	1.0339
314	5-1-25	4-23 to 5-29-25	289.3	5.63	3.74	4.87	.708	14.82	9.29	1.0331
349	2-18-26	1-30 to 2-5-26	343.6	5.64	4.03	5.26	.708	15.69	10.05	1.0331
349	10-26-25	10-10 to 11-13-25	548.0	5.64	4.08	4.95	.791	15.46	9.82	1.0364
317	11-30-25	11-14 to 12-18-25	236.7	5.64	4.56	4.45	.810	15.46	9.82	1.0342
293	4-21-24	4-5 to 5-9-24	692.9	5.65	3.80	5.20	.698	15.35	9.70	1.0331
293	6-26-24	6-10 to 6-13-24	648.8	5.68	3.92	5.22	.720	15.84	9.86	1.0335
334	12-7-25	11-14 to 12-18-25	672.3	5.71	4.46	5.25	.816	16.24	10.53	1.0346
314	3-2-26	2-14 to 3-20-25	331.4	5.73	4.19	4.84	.758	15.52	9.79	1.0347
317	10-13-24	9-27 to 10-31-24	516.0	5.76	3.92	5.08	.656	15.42	9.66	1.0348
299	1-19-25	1-10 to 1-30-25	591.8	5.76	4.08	4.99	.729	15.56	9.80	1.0367
317	10-26-25	10-10 to 11-13-25	260.1	5.76	4.48	4.62	.772	15.63	9.87	1.0352

TABLE 4.—COMPOSITION OF JERSEY MILK (Concluded)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
347	11-30-25	11-13 to 12-18-25	346.6	5.77	4.40	4.95	712	15.83	10.06	1.0358
314	7-7-24	6-21 to 7-25-24	925.1	5.78	4.26	4.97	748	15.76	9.98	1.0345
317	9-8-24	8-23 to 9-26-24	607.5	5.78	4.32	5.01	740	15.85	10.07	1.0340
314	2-18-24	2-9 to 3-7-24	1 114.5	5.78	4.32	4.84	787	15.78	10.00	1.0349
293	3-17-24	3-14 to 3-24	438.2	5.80	4.70	4.94	772	16.21	10.41	1.0348
314	8-11-24	7-26 to 8-29-24	724.6	5.82	4.22	4.85	700	15.59	9.77	1.0330
349	4-26-26	4-10 to 5-14-26	157.9	5.85	4.02	4.87	763	15.50	9.65	1.0328
334	1-4-26	12-19-25 to 1-22-26	310.1	5.86	3.53	5.06	750	15.63	11.07	1.0340
327	9-6-26	8-22 to 9-25-26	507.9	5.88	3.53	4.77	618	14.80	8.92	1.0340
305	12-22-24	12-6-24 to 1-9-25	611.3	5.88	4.10	4.87	688	15.54	9.66	1.0357
334	10-30-25	10-10 to 11-13-25	719.6	5.88	4.48	4.93	772	16.26	10.38	1.0366
314	6-2-24	5-17 to 6-20-24	974.1	5.90	4.37	4.84	752	15.86	9.96	1.0348
327	1-19-25	1-17 to 1-30-24	242.6	5.94	4.26	5.13	700	16.03	10.09	1.0335
349	11-30-25	11-14 to 12-18-25	542.6	5.95	4.12	4.80	770	15.64	9.69	1.0369
299	2-15-26	1-30 to 3-5-26	410.2	5.97	4.06	4.87	698	15.60	9.63	1.0331
317	1-4-26	12-19 to 1-15-26	126.8	5.97	4.73	4.62	796	16.12	10.15	1.0346
314	10-26-25	10-10 to 11-13-25	207.2	6.05	4.21	4.95	770	15.98	9.93	1.0354
314	4-28-24	4-12 to 5-16-24	1 047.7	6.06	4.31	4.81	771	15.95	9.89	1.0349
334	2-8-26	1-23 to 2-26-26	316.6	6.06	4.55	5.10	750	16.46	10.40	1.0333
352	5-31-26	5-15 to 6-11-26	149.4	6.07	3.94	4.39	658	15.06	8.99	1.0271
327	1-5-25	12-20-24 to 1-16-25	480.9	6.08	4.20	4.87	723	15.87	9.79	1.0338
314	3-24-24	3-8 to 4-11-24	1 039.2	6.08	4.54	4.72	761	16.10	10.02	1.0355
317	11-17-24	11-1 to 12-5-24	477.8	6.09	4.38	4.79	728	15.99	9.90	1.0352
347	5-31-26	5-15 to 6-11-26	145.3	6.16	3.98	4.48	644	15.26	9.10	1.0260
314	10-20-24	10-4 to 11-7-24	388.5	6.20	4.58	4.92	715	16.42	10.22	1.0324
349	1-7-26	12-19-25 to 1-29-26	587.6	6.21	4.27	5.02	816	16.32	10.11	1.0335
314	6-15-25	5-30 to 6-26-25	204.1	6.24	3.53	4.86	666	15.30	9.06	1.0330
314	9-15-24	8-30 to 10-3-24	629.9	6.24	3.46	4.85	682	15.98	9.74	1.0330
279	11-12-23	10-27 to 11-30-23	983.2	6.26	3.21	5.26	684	15.66	9.40	1.0324
352	1-11-26	12-26-25 to 1-29-26	526.0	6.41	4.02	4.44	740	15.61	9.20	1.0326
347	2-15-26	1-30 to 3-5-26	290.3	6.41	4.23	4.98	718	16.34	9.93	1.0326
352	4-26-26	4-10 to 5-14-26	391.2	6.46	3.26	4.62	748	16.07	9.63	1.0306
352	2-15-26	1-30 to 3-5-26	213.5	6.50	3.76	5.11	700	16.09	9.57	1.0337
347	4-26-26	4-10 to 5-14-26	214.2	6.60	3.98	5.12	679	16.38	9.78	1.0323
299	9-28-25	9-12 to 10-30-25	536.5	6.61	4.00	5.07	681	16.36	9.75	1.0335
352	3-22-26	3-6 to 4-9-26	287.4	6.62	3.92	5.06	720	16.32	9.70	1.0309
347	3-22-26	3-6 to 4-9-26	262.4	6.72	4.12	5.02	704	16.56	9.84	1.0315
340	3-22-26	3-6 to 4-9-26	264.0	6.78	4.02	5.02	762	16.50	9.72	1.0316
347	1-11-26	12-19-25 to 1-29-26	398.0	6.80	4.44	4.96	698	16.90	10.10	1.0320
347	6-28-26	6-12 to 7-23-26	143.3	7.34	4.91	4.06	650	16.96	9.62	1.0341
334	5-11-25	4-25 to 5-29-25	476.7	7.59	3.23	5.15	706	16.68	9.09	1.0314
279	10-8-23	9-23 to 10-26-23	1 098.9	8.36	4.02	4.48	817	17.68	9.32	1.0362
305	7-21-25	6-20 to 7-24-25	239.9	8.37	5.83	2.73	726	17.66	9.29	1.0330

TABLE 5.—COMPOSITION OF 1,002 SAMPLES OF MILK FROM 64 GUERNSEY-HOLSTEIN CROSSED COWS
(4 lactations each of 1 cow, 3 each of 4 cows, 2 each of 19 cows, and 1 each of 42 cows)

Cow No.	Date ¹	Time interval	Pounds ² of milk	Fat	Protein	Lactose ³	Ash	Total solids	Solids ⁴ not-fat	Specific gravity
				percl.	percl.	percl.	percl.	percl.	percl.	
702	4-27-25	4-7 to 5-11-25	524.5	2.72	3.27	3.91	.682	10.58	7.86	1.0291
807	7-26-26	7-6 to 8-9-26	1 124.6	2.92	2.91	5.10	.680	11.52	8.69	1.0302
807	6-21-26	6-1 to 7-5-26	1 068.0	2.94	2.74	5.04	.704	11.42	8.48	1.0295
804	2-16-25	1-27 to 3-2-25	1 076.6	2.98	2.96	5.38	.702	12.02	9.04	1.0335
806	6-21-26	6-1 to 7-5-26	875.1	2.98	3.05	6.43	.643	11.60	8.62	1.0295
806	5-17-26	4-27 to 5-31-26	1 061.3	3.02	3.02	5.29	.606	11.94	8.92	1.0280
801	9-14-25	8-25 to 9-28-25	1 866.8	3.02	3.32	5.01	.707	12.06	9.04	1.0338
741	8-30-26	8-10 to 9-13-26	1 116.2	3.03	2.80	5.17	.663	11.66	8.63	1.0271
801	6-1-25	5-12 to 6-15-25	1 168.0	3.03	3.03	5.05	.678	11.79	8.76	1.0326
807	8-30-26	8-16 to 9-20-26	1 137.1	3.04	2.82	5.23	.651	11.84	8.80	1.0277
806	3-8-26	2-16 to 3-22-26	1 179.8	3.04	2.86	5.16	.679	11.74	8.70	1.0324
801	4-18-24	4-1 to 5-5-24	1 035.7	3.06	3.12	5.19	.690	12.06	9.00	1.0328
804	4-27-25	4-7 to 5-11-25	1 875.3	3.06	3.14	5.32	.714	12.23	9.17	1.0353
801	4-27-25	4-7 to 5-11-25	1 226.8	3.08	2.87	5.03	.703	11.88	8.60	1.0318
683	8-21-22	7-8 to 9-1-22	1 710.3	3.08	2.98	5.15	.730	11.84	8.76	1.0310
801	8-10-25	7-21 to 8-24-25	1 026.4	3.08	3.12	5.01	.694	12.04	8.96	1.0326
7-6-25	6-16 to 7-20-25	1 039.6	3.09	2.94	2.94	5.01	.683	11.72	8.63	1.0317
806	7-26-26	7-6 to 8-9-26	762.1	3.10	3.16	4.83	.652	11.74	8.64	1.0272
741	7-26-26	7-19 to 8-9-26	989.4	3.12	3.02	5.05	.706	11.90	8.78	1.0275
804	6-1-25	5-12 to 6-15-25	914.7	3.12	3.32	5.04	.718	12.20	9.08	1.0329
801	7-28-24	7-8 to 8-11-24	798.0	3.14	3.40	4.93	.693	12.16	9.02	1.0320
801	6-23-24	6-3 to 7-7-24	885.1	3.16	3.28	5.10	.701	12.24	9.08	1.0329
671	5-19-24	5-29 to 7-2-23	1 371.3	3.17	3.47	4.94	.681	12.26	9.09	1.0328
801	7-28-24	7-8 to 8-11-24	777.9	3.18	3.28	5.14	.717	12.32	9.14	1.0333
671	8-30-26	8-10 to 9-13-26	1 438.2	3.20	3.03	4.94	.674	11.84	8.64	1.0306
671	2-26-23	2-13 to 3-19-23	649.8	3.20	3.16	5.06	.660	12.08	8.88	1.0281
805	9-14-25	8-25 to 9-28-25	1 631.1	3.20	3.16	5.22	.694	12.27	9.07	1.0345
671	2-28-22	2-14 to 3-13-22	743.7	3.23	3.43	5.19	.648	12.50	9.27	1.0344
801	3-10-24	2-5 to 3-31-24	808.3	3.24	3.33	4.81	.697	12.08	8.84	1.0328
804	7-6-25	6-16 to 7-20-25	1 640.7	3.27	3.14	5.06	.710	12.18	8.91	1.0321
804	9-2-24	8-12 to 9-15-24	884.6	3.28	3.32	5.17	.722	12.49	9.21	1.0328
671	9-2-24	8-12 to 9-15-24	1 293.8	3.29	3.14	4.85	.660	11.94	8.65	1.0315
663	7-31-22	7-18 to 8-21-22	1 044.9	3.30	2.95	5.15	.662	12.06	8.75	1.0315
671	8-20-23	8-7 to 9-10-23	1 040.5	3.30	3.48	4.80	.730	12.30	9.00	1.0315
805	7-6-25	6-16 to 7-20-25	1 176.5	3.31	3.54	4.88	.672	12.39	9.09	1.0320
804	3-23-25	3-3 to 4-6-25	782.8	3.31	3.27	5.25	.682	12.51	9.20	1.0329
			970.5	3.32	3.09	5.20	.693	12.30	8.98	1.0323

¹The three-day composite sample was completed with the morning milking of the date given. ²Milk yield between the dates (inclusive) given in column 3. ³Total solids percent — (fat percent + protein percent + ash percent) = lactose percent. ⁴Total solids percent — fat percent = solids-not-fat percent.

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
741	10-7-26	9-14 to 10-18-26	1 075.6	3.34	2.76	5.38	.680	12.16	8.82	1.0330
807	10-7-26	9-21 to 10-18-26	704.4	3.34	3.13	5.19	.703	12.36	9.02	1.0342
723	2-14-22	1-31 to 3-6-22	952.7	3.35	3.02	4.97	.658	12.00	8.65	1.0320
723	3-21-22	3-7 to 4-10-22	873.1	3.36	3.38	5.11	.715	12.57	9.21	1.0320
804	9-14-25	8-25 to 9-28-25	835.3	3.38	3.52	5.00	.680	12.58	9.20	1.0351
702	7-3-22	6-20 to 7-24-22	995.3	3.39	3.00	4.69	.678	11.76	8.37	1.0302
665	4-17-22	3-28 to 5-1-22	2 145.9	3.40	2.96	5.12	.700	12.18	8.78	1.0306
805	8-10-25	7-21 to 8-24-25	758.3	3.40	3.36	5.34	.688	12.79	9.39	1.0332
723	7-3-22	6-20 to 7-24-22	682.4	3.40	3.44	5.30	.686	12.83	9.43	1.0325
803	9-14-25	8-25 to 9-28-25	680.0	3.40	3.40	5.50	.637	13.24	9.84	1.0360
713	8-13-23	7-31 to 9-3-23	808.4	3.40	4.02	4.95	.814	13.78	10.38	1.0359
663	4-30-23	4-17 to 5-21-23	1 428.5	3.41	3.47	5.04	.745	12.66	9.25	1.0347
806	4-12-26	3-23 to 4-26-26	1 129.1	3.42	2.72	5.29	.580	12.01	8.59	1.0317
804	1-12-25	12-23-24 to 1-26-25	1 154.3	3.42	2.99	5.11	.701	12.22	8.80	1.0329
671	4-27-25	4-7 to 5-11-25	502.8	3.42	3.38	4.87	.672	12.34	8.92	1.0316
671	5-10-22	4-18 to 5-22-22	1 061.9	3.42	3.46	5.11	.732	12.72	9.30	1.0313
801	9-2-24	8-12 to 9-15-24	707.3	3.42	3.49	4.81	.683	12.40	8.98	1.0322
805	4-27-25	4-7 to 5-11-25	812.5	3.43	3.12	5.42	.670	12.64	9.21	1.0327
663	4-17-22	4-4 to 5-8-22	1 555.6	3.44	3.27	5.09	.700	12.50	9.06	1.0322
729	6-16-24	5-27 to 6-30-24	958.4	3.44	3.30	5.21	.663	12.61	9.17	1.0333
723	6-23-24	6-3 to 7-7-24	532.4	3.44	3.84	4.69	.686	12.66	9.22	1.0320
663	11-26-23	11-13 to 12-17-23	930.6	3.45	3.18	4.91	.638	12.18	8.73	1.0312
729	6-26-22	6-13 to 7-17-22	1 149.9	3.45	3.32	5.00	.714	12.48	9.03	1.0321
729	5-12-24	4-29 to 5-26-24	794.6	3.46	3.16	5.12	.660	12.55	8.94	1.0328
637	5-7-23	4-17 to 5-21-23	454.3	3.46	3.18	5.19	.725	12.60	9.09	1.0338
655	7-24-22	7-11 to 8-10-22	784.8	3.46	3.44	4.98	.717	12.60	9.14	1.0332
804	8-10-25	7-11 to 8-12-25	796.3	3.46	3.58	4.61	.767	12.42	8.96	1.0308
663	3-26-23	3-13 to 4-16-23	839.4	3.46	3.78	4.96	.702	12.90	9.44	1.0353
671	3-23-25	3-3 to 4-6-25	1 575.6	3.47	3.37	4.86	.702	12.40	8.93	1.0327
805	6-1-25	5-12 to 6-15-25	833.7	3.47	3.48	4.76	.663	12.37	8.90	1.0322
723	12-31-23	12-18 to 1-21-24	845.7	3.48	3.20	5.26	.677	12.62	8.90	1.0331
665	7-31-22	7-11 to 8-14-22	1 234.8	3.48	3.34	4.77	.634	12.22	8.74	1.0322
804	8-10-25	7-21 to 8-24-25	838.2	3.48	3.38	4.79	.692	12.30	8.82	1.0302
648	5-19-24	4-29 to 6-2-24	1 127.1	3.48	3.38	5.18	.736	12.78	9.30	1.0333
665	9-4-22	8-15 to 9-18-22	1 191.8	3.48	3.46	4.67	.712	12.32	8.84	1.0319
657	7-17-22	6-27 to 7-31-22	846.1	3.48	3.48	4.78	.682	12.42	8.94	1.0310
723	9-11-22	8-29 to 10-2-22	609.1	3.50	3.44	4.94	.722	12.60	9.10	1.0332
801	3-23-25	2-25 to 4-6-25	1 625.9	3.50	4.10	4.87	.709	13.18	9.68	1.0303
665	6-26-22	6-6 to 7-10-22	1 493.9	3.52	2.90	5.09	.706	12.22	8.70	1.0320
				3.52	2.97	5.07	.685	12.24	8.72	1.0305

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
648	4-14-24	3-23 to 4-28-24	1 281.6	3.52	3.31	5.00	.632	12.46	8.94	1.0319
723	2-4-24	1-22 to 2-25-24	744.8	3.52	3.51	4.86	.674	12.56	9.04	1.0323
657	6-12-22	5-30 to 6-26-22	813.8	3.52	3.52	5.10	.736	12.88	9.36	1.0345
723	5-19-24	4-29 to 6-2-24	591.2	3.52	3.90	4.71	.702	12.83	9.31	1.0336
735	12-8-24	11-18 to 12-8-24	99.6	3.52	5.42	3.58	.796	13.24	9.72	1.0336
663	3-14-22	2-28 to 4-3-22	1 580.3	3.53	3.29	5.08	.743	12.64	9.11	1.0322
657	2-28-22	2-14 to 3-17-22	1 264.5	3.54	3.04	4.89	.728	12.20	8.66	1.0315
707	8-6-23	7-24 to 8-27-23	1 207.3	3.54	3.38	4.77	.614	12.30	8.76	1.0306
671	10-6-24	9-16 to 10-20-24	1 131.2	3.54	3.38	4.80	.679	12.84	8.86	1.0317
807	12-13-26	11-23 to 12-27-26	749.6	3.54	3.50	5.12	.679	12.84	9.30	1.0309
683	3-26-23	3-6 to 4-9-23	369.5	3.54	3.68	4.27	.726	12.22	8.68	1.0310
723	8-7-22	7-23 to 8-28-22	683.4	3.54	3.79	4.96	.704	12.99	9.45	1.0324
689	8-7-22	7-23 to 8-28-22	838.0	3.54	4.06	5.17	.722	13.49	9.95	1.0343
805	11-23-25	11-3 to 12-7-25	731.9	3.55	3.65	5.11	.690	13.00	9.45	1.0352
671	1-23-22	1-10 to 2-13-22	1 048.5	3.56	3.32	4.88	.735	12.50	8.94	1.0332
663	6-4-23	5-22 to 6-25-23	1 342.7	3.56	3.56	5.18	.735	13.04	9.48	1.0337
671	7-16-23	7-3 to 8-6-23	1 270.1	3.57	3.37	4.87	.668	12.48	8.91	1.0314
801	11-23-25	11-3 to 12-7-25	986.7	3.57	3.60	5.02	.690	12.88	9.31	1.0351
739	5-17-26	4-27 to 5-31-26	980.1	3.58	3.23	5.37	.731	12.91	9.33	1.0292
707	6-12-22	5-30 to 7-3-22	1 073.7	3.58	3.30	5.38	.673	12.93	9.35	1.0336
807	11-8-26	10-19 to 11-22-26	849.4	3.58	3.54	4.95	.692	12.76	9.18	1.0313
657	8-20-23	7-31 to 9-3-23	563.6	3.58	3.56	4.82	.704	12.66	9.08	1.0332
805	3-23-25	3-3 to 4-6-25	882.4	3.59	3.10	5.37	.660	12.72	9.13	1.0326
707	7-17-22	7-4 to 8-7-22	921.4	3.59	3.32	5.03	.628	12.72	8.98	1.0317
738	7-26-26	7-6 to 8-9-26	1 484.2	3.59	3.49	4.91	.706	12.70	9.11	1.0337
721	3-21-22	3-7 to 4-10-22	655.0	3.59	3.52	4.90	.734	12.83	9.21	1.0304
648	7-28-24	7-8 to 8-11-24	890.2	3.60	3.46	5.44	.753	13.64	10.05	1.0349
671	2-16-25	1-27 to 3-2-25	672.3	3.60	3.48	4.36	.663	12.60	8.59	1.0297
710	3-14-22	2-25 to 4-3-22	593.2	3.60	3.52	4.76	.690	12.57	8.97	1.0331
683	4-30-23	4-10 to 5-14-23	367.3	3.60	3.53	5.07	.737	12.84	9.34	1.0311
723	4-14-24	4-1 to 4-28-24	507.4	3.60	3.56	4.44	.704	12.30	8.70	1.0312
739	3-8-26	2-16 to 3-22-26	1 292.3	3.61	3.82	4.56	.669	12.65	9.05	1.0321
663	4-17-22	4-4 to 5-8-22	344.5	3.61	3.15	5.26	.772	12.79	9.18	1.0346
683	2-8-22	1-24 to 2-27-22	1 600.3	3.62	4.63	5.41	.810	14.46	10.85	1.0364
729	4-7-24	3-25 to 4-28-24	988.3	3.62	2.98	4.77	.712	12.08	8.46	1.0323
648	9-2-24	8-12 to 9-15-24	805.8	3.62	3.06	5.17	.663	12.51	8.89	1.0329
807	2-22-27	2-8 to 3-14-27	732.0	3.62	3.59	4.51	.642	12.36	8.74	1.0314
804	12-28-25	12-8-25 to 1-11-26	881.8	3.62	3.60	4.84	.704	12.76	9.14	1.0300
671	9-17-23	9-11 to 10-15-23	948.8	3.63	3.80	4.95	.774	13.14	9.52	1.0343
					3.94	4.85	.677	13.10	9.47	1.0337

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
673	5-16-22	4-25 to 5-29-22	1 525.4	3.64	3.00	5.29	.707	12.64	9.00	1.0323
738	2-16-25	1-27 to 3-2-25	645.3	3.64	3.26	4.94	.704	12.54	8.90	1.0324
671	4-10-22	3-14 to 4-17-22	928.3	3.64	3.40	5.12	.735	12.90	9.26	1.0326
657	5-10-22	4-25 to 5-29-22	1 065.4	3.64	3.42	5.16	.727	12.95	9.31	1.0325
738	8-10-25	7-21-25 to 8-24-25	602.5	3.64	3.47	4.75	.710	12.60	8.96	1.0320
801	12-13-26	11-23 to 12-27-26	1 023.6	3.65	3.67	5.00	.721	13.04	9.39	1.0302
702	8-7-22	7-25 to 8-28-22	851.1	3.66	3.34	4.45	.728	12.18	8.52	1.0295
671	11-15-21	11-1 to 12-5-21	997.5	3.66	3.40	4.55	.754	12.36	8.70	1.0334
807	6-20-27	5-24 to 6-27-27	700.8	3.66	3.54	4.96	.688	12.85	9.19	1.0337
721	1-10-22	12-27-21 to 1-30-22	704.3	3.66	3.55	5.18	.770	13.16	9.50	1.0355
733	6-16-24	5-27 to 6-30-24	464.3	3.66	3.64	4.70	.738	12.74	9.08	1.0322
805	2-1-26	1-12 to 2-15-26	671.5	3.66	3.68	5.13	.643	13.11	9.45	1.0330
657	4-4-22	3-18 to 4-24-22	1 360.2	3.67	3.28	5.31	.755	13.02	9.35	1.0326
738	6-1-25	5-12 to 6-15-25	608.9	3.67	3.32	4.91	.708	12.51	8.84	1.0329
671	6-12-22	5-23 to 6-26-22	972.9	3.67	3.66	5.23	.721	13.28	9.61	1.0351
801	5-17-26	4-27 to 5-31-26	925.3	3.67	3.78	5.16	.716	13.33	9.66	1.0322
673	6-19-22	5-30 to 7-3-22	1 337.6	3.68	2.80	5.04	.658	12.38	8.90	1.0316
738	3-8-26	2-16 to 3-22-26	938.6	3.68	3.19	5.28	.742	12.89	9.21	1.0330
707	4-23-23	4-10 to 5-14-23	1 486.4	3.68	3.40	5.12	.669	12.87	9.19	1.0331
723	7-2-23	6-19 to 7-23-23	1 312.5	3.68	3.45	5.00	.654	12.78	9.10	1.0316
644	2-1-26	1-12 to 2-15-26	946.5	3.68	3.46	5.70	.680	13.52	9.84	1.0350
707	5-28-23	5-15 to 6-18-23	1 418.3	3.68	3.48	5.16	.656	12.98	9.30	1.0339
739	6-1-25	5-12 to 6-15-25	592.8	3.68	3.50	5.00	.712	12.89	9.21	1.0338
804	4-12-26	3-23 to 4-26-26	854.8	3.68	3.66	5.23	.690	13.26	9.58	1.0339
710	1-23-23	1-2 to 2-5-23	765.1	3.68	3.68	4.07	.731	12.16	8.48	1.0308
702	5-29-22	5-16 to 6-19-22	1 174.2	3.69	2.99	4.89	.686	12.26	8.57	1.0301
723	4-25-22	4-11 to 5-15-22	846.7	3.69	3.54	5.14	.733	13.10	9.41	1.0324
805	3-8-26	2-16 to 3-22-26	670.4	3.69	3.57	5.18	.704	13.14	9.45	1.0339
655	8-28-22	8-11 to 9-11-22	822.6	3.69	3.72	4.80	.746	12.96	9.27	1.0326
683	7-17-22	7-4 to 8-7-22	1 414.6	3.70	3.12	4.68	.763	12.66	8.56	1.0311
729	7-21-24	7-1 to 8-4-24	823.3	3.70	3.22	5.08	.655	12.66	8.96	1.0319
738	6-21-26	6-1 to 7-5-26	737.4	3.70	3.36	4.84	.704	12.60	8.90	1.0310
663	8-13-23	7-14 to 10-18-26	582.1	3.70	3.44	4.93	.690	12.76	9.06	1.0326
738	4-27-25	4-7 to 5-11-25	1 024.5	3.70	3.56	5.06	.704	12.92	9.22	1.0331
671	12-8-24	11-18 to 12-22-24	550.4	3.70	3.40	4.86	.709	12.77	9.07	1.0322
702	2-10-25	3-3 to 4-6-25	901.8	3.72	3.54	4.52	.682	12.46	8.76	1.0320
805	2-10-25	1-27 to 3-2-25	975.3	3.72	3.16	4.80	.690	13.10	9.38	1.0335
738	9-14-25	8-25 to 9-28-25	562.7	3.72	3.20	4.74	.720	12.38	8.66	1.0326
801	4-12-26	3-23 to 4-26-26	947.3	3.72	3.37	5.21	.662	12.96	9.24	1.0334

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat per cent.	Protein per cent.	Lactose per cent.	Ash per cent.	Total solids per cent.	Solids-not-fat per cent.	Specific gravity
729	8-26-24	8-5 to 9-8-24	733.9	3.72	3.46	5.19	.667	13.04	9.32	1.0332
727	3-28-27	3-15 to 4-18-27	695.0	3.72	3.60	4.98	.677	12.98	9.26	1.0314
723	3-10-24	2-26 to 3-31-24	680.6	3.72	3.82	4.63	.685	12.85	9.13	1.0311
710	4-2-23	3-13 to 4-16-23	371.0	3.72	3.98	5.76	.782	12.24	8.52	1.0290
804	10-19-25	9-29 to 11-2-25	849.2	3.72	3.62	5.13	.764	13.24	9.51	1.0355
738	7-26-26	7-6 to 8-9-26	679.4	3.73	3.65	5.11	.768	13.26	9.53	1.0302
736	6-16-23	5-27 to 6-30-24	1 097.8	3.74	3.24	5.09	.796	12.80	9.06	1.0328
713	11-26-23	11-13 to 12-17-23	886.3	3.74	3.38	4.83	.712	12.66	8.92	1.0324
804	3-8-26	2-16 to 3-22-26	865.3	3.74	3.56	5.15	.744	13.20	9.46	1.0342
714	8-28-22	8-15 to 9-18-22	826.3	3.74	3.99	5.13	.730	13.29	9.45	1.0332
710	2-26-23	2-6 to 3-12-23	544.1	3.74	3.74	5.30	.778	12.06	8.32	1.0295
683	6-19-22	1-30 to 3-5-23	407.4	3.74	3.90	4.45	.771	12.80	9.06	1.0333
714	9-4-22	6-6 to 7-10-22	887.1	3.75	3.44	5.06	.744	12.99	9.24	1.0336
663	9-25-22	8-22 to 9-25-22	1 022.0	3.75	3.67	4.88	.702	13.00	9.25	1.0316
683	3-7-22	9-12 to 10-16-22	1 295.3	3.76	3.24	4.89	.710	12.60	8.84	1.0318
655	9-25-22	2-21 to 3-27-22	1 203.9	3.76	3.34	4.67	.772	12.54	8.78	1.0331
805	10-19-25	9-25 to 9-28-25	766.9	3.76	3.56	5.30	.698	13.32	9.56	1.0350
805	12-28-25	8-25 to 9-28-25	589.8	3.76	3.64	5.47	.726	13.60	9.84	1.0359
801	5-16-27	4-19 to 5-23-27	699.5	3.76	3.65	5.22	.717	13.35	9.59	1.0341
723	5-29-22	5-16 to 6-19-22	825.9	3.76	3.66	5.02	.726	13.17	9.41	1.0351
671	11-26-23	11-20 to 12-24-23	743.2	3.76	3.66	5.20	.704	13.32	9.56	1.0336
801	7-25-27	6-28 to 8-1-27	692.5	3.76	3.71	4.70	.688	12.86	9.10	1.0323
739	8-10-25	7-21 to 8-24-25	528.6	3.77	3.36	5.07	.701	12.86	9.10	1.0300
644	5-12-24	7-6 to 8-9-26	650.1	3.77	3.58	5.20	.712	12.91	9.14	1.0325
733	5-12-24	4-29 to 5-26-24	433.7	3.77	3.72	4.74	.662	13.21	9.44	1.0307
801	11-8-26	10-19 to 11-22-26	1 076.4	3.77	3.75	4.87	.754	13.14	9.20	1.0326
680	8-7-22	7-25 to 8-28-22	698.1	3.77	3.98	4.73	.704	13.18	9.41	1.0308
723	10-23-23	10-9 to 11-12-23	1 030.4	3.78	3.18	4.76	.654	12.37	8.59	1.0314
690	12-31-23	12-25 to 1-14-24	518.8	3.78	3.32	5.05	.692	12.84	9.06	1.0329
736	7-21-24	7-1 to 7-24-24	648.0	3.78	3.42	4.91	.738	12.85	9.07	1.0328
644	6-21-26	6-1 to 7-5-26	679.6	3.78	3.57	4.96	.738	12.94	9.16	1.0309
736	7-28-24	7-25 to 8-11-24	449.0	3.78	3.64	5.06	.711	13.02	9.34	1.0327
738	5-17-26	4-27 to 5-31-26	676.0	3.78	3.57	4.89	.744	13.15	9.27	1.0309
804	2-1-26	1-12 to 2-15-26	886.3	3.78	3.78	5.13	.695	13.26	9.48	1.0333
687	8-7-22	7-25 to 8-28-22	249.1	3.79	3.73	4.74	.704	12.98	9.17	1.0303
739	3-2-24	2-19 to 3-24-24	1 032.3	3.80	3.02	4.74	.666	12.74	8.94	1.0320
739	4-12-26	3-23 to 4-26-26	1 110.2	3.80	3.14	5.25	.763	13.00	9.20	1.0355
655	5-16-22	4-23 to 6-5-22	1 301.0	3.80	3.42	5.10	.737	13.08	9.28	1.0327
801	2-22-27	2-8 to 3-14-27	892.2	3.80	3.71	4.62	.715	12.85	9.05	1.0312

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
739	7-6-25	6-16 to 7-20-25	535.9	3.81	3.27	5.02	.724	12.82	9.01	1.0319
804	6-21-26	6-1 to 7-5-26	755.8	3.81	3.68	5.27	.745	13.50	9.69	1.0320
806	11-8-26	10-19 to 11-22-26	514.0	3.81	3.89	4.66	.682	13.04	9.23	1.0297
880	7-2-23	6-19 to 7-23-23	127.9	3.81	3.96	4.05	.637	12.46	8.65	1.0291
671	4-2-23	3-20 to 4-23-23	1 532.9	3.82	3.42	5.10	.729	13.07	9.25	1.0337
713	12-27-21	12-13-21 to 1-16-22	685.5	3.82	3.66	4.51	.773	12.76	8.94	1.0331
806	12-13-26	11-23 to 12-27-26	391.1	3.82	3.72	4.79	.672	13.00	9.18	1.0313
657	8-21-22	8-1 to 9-4-22	867.0	3.82	3.78	5.07	.748	13.42	9.60	1.0334
806	1-17-27	12-28-26 to 1-31-27	238.5	3.82	3.94	4.47	.690	12.92	9.10	1.0301
668	6-12-22	5-30 to 7-3-22	786.3	3.83	3.68	4.95	.736	13.10	9.27	1.0314
801	6-27-26	6-1 to 7-5-26	811.2	3.83	3.88	5.13	.744	13.40	9.57	1.0326
674	4-17-22	4-4 to 5-8-22	888.3	3.83	3.72	5.01	.732	13.46	9.63	1.0338
801	10-7-26	9-14 to 10-18-26	504.2	3.83	3.87	5.01	.767	13.48	9.65	1.0364
765	3-14-22	2-28 to 3-27-22	1 518.1	3.84	3.65	4.97	.724	12.78	8.84	1.0299
736	5-12-24	4-22 to 5-26-24	1 242.0	3.84	3.46	5.03	.699	12.73	8.89	1.0322
683	1-2-22	12-20-21 to 1-23-22	982.5	3.84	3.38	4.62	.756	12.60	8.76	1.0326
707	8-21-22	8-8 to 9-11-22	827.0	3.84	3.40	5.16	.644	13.04	9.20	1.0312
666	2-28-22	2-14 to 3-20-22	926.5	3.84	3.43	4.81	.751	12.83	8.99	1.0319
657	6-12-23	5-22 to 7-2-23	847.4	3.84	3.50	5.14	.722	13.20	9.36	1.0335
801	2-1-26	1-12 to 2-15-26	961.2	3.84	3.56	5.02	.653	13.07	9.23	1.0320
801	3-28-27	3-15 to 4-18-27	851.6	3.84	3.66	4.99	.717	13.21	9.37	1.0320
710	4-17-22	4-4 to 5-8-22	501.6	3.84	3.72	4.72	.743	13.02	9.18	1.0313
655	11-13-22	10-24 to 11-27-22	788.6	3.84	4.09	4.45	.743	13.12	9.28	1.0339
657	7-16-23	7-3 to 7-30-23	456.0	3.85	3.38	4.83	.683	12.74	8.89	1.0314
807	5-16-27	4-19 to 5-23-27	699.4	3.85	3.47	5.25	.701	13.27	9.42	1.0332
671	12-31-23	12-25-23 to 1-28-24	742.6	3.85	3.84	4.69	.650	13.03	9.18	1.0330
801	6-20-27	5-24 to 6-27-27	817.6	3.85	3.86	4.67	.743	13.12	9.27	1.0330
673	4-11-22	3-21 to 4-24-22	1 732.1	3.86	2.80	5.28	.712	12.65	8.79	1.0319
739	2-16-25	1-27 to 3-2-25	837.1	3.86	3.36	5.24	.743	13.20	9.34	1.0338
714	7-24-22	7-11 to 8-14-22	809.6	3.86	3.45	5.16	.732	13.20	9.34	1.0329
713	12-31-23	12-25-23 to 1-14-24	494.4	3.86	3.52	4.72	.684	12.78	8.92	1.0325
648	6-23-24	6-3 to 7-7-24	1 028.1	3.86	3.62	4.80	.718	13.00	9.14	1.0325
712	4-17-22	3-28 to 5-1-22	726.1	3.86	3.63	5.28	.707	13.48	9.62	1.0324
804	1-17-27	12-28-26 to 2-7-27	1 102.7	3.86	3.80	5.03	.730	13.42	9.56	1.0311
801	5-17-26	4-27 to 5-31-26	864.3	3.86	3.94	5.19	.748	13.74	9.88	1.0309
655	6-19-22	6-6 to 7-10-22	939.8	3.87	3.70	4.75	.730	12.65	8.78	1.0317
680	7-3-22	6-20 to 7-24-22	762.8	3.87	3.74	4.99	.672	13.27	9.40	1.0337
683	2-8-22	1-24 to 2-27-22	895.9	3.88	3.38	4.69	.729	12.68	8.80	1.0335
801	3-8-26	2-16 to 3-22-26	982.8	3.88	3.41	5.13	.724	13.14	9.26	1.0334
655	4-11-22	3-28 to 4-24-22	911.2	3.88	3.56	5.08	.776	13.30	9.42	1.0336

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
732	6-16-24	5-27 to 6-30-24	653.8	3.88	3.61	5.02	.692	13.20	9.32	1.0332
655	10-2-22	9-12 to 10-23-22	963.8	3.88	3.71	4.66	.747	13.00	9.12	1.0320
723	10-16-22	10-8 to 10-23-22	323.6	3.88	4.22	4.85	.710	12.63	9.78	1.0335
738	10-6-24	9-16 to 10-20-24	683.1	3.89	3.17	4.90	.670	12.63	8.74	1.0309
671	1-23-23	1-9 to 2-12-23	1 789.5	3.89	3.18	5.19	.704	12.96	9.07	1.0334
738	3-23-25	3-3 to 4-6-25	567.3	3.89	3.42	4.69	.698	12.70	8.81	1.0314
647	4-2-23	3-13 to 4-16-23	1 039.6	3.89	3.42	4.89	.753	12.95	9.06	1.0333
659	7-3-22	6-20 to 7-24-22	783.5	3.89	3.48	4.75	.738	12.86	8.97	1.0329
649	9-19-24	8-26 to 6-2-24	381.1	3.89	3.60	4.96	.727	13.18	9.29	1.0326
687	9-11-22	5-6 to 6-2-22	205.7	3.89	3.82	4.71	.704	13.12	9.23	1.0308
683	12-11-22	8-29 to 12-25-22	642.0	3.89	3.95	4.48	.732	13.05	9.16	1.0334
807	1-17-27	11-21 to 12-25-22	906.4	3.90	3.32	5.30	.678	13.20	9.30	1.0282
649	3-21-22	3-7 to 4-10-22	292.6	3.90	3.36	5.30	.751	13.31	9.41	1.0336
687	3-21-22	3-7 to 4-10-22	292.6	3.90	3.56	4.71	.709	12.88	8.98	1.0304
713	11-22-21	11-8 to 12-12-21	731.9	3.90	3.60	4.98	.770	12.64	8.74	1.0335
670	8-7-22	7-25 to 8-28-22	968.6	3.90	3.66	4.98	.698	13.24	9.34	1.0324
649	9-11-22	8-29 to 10-2-22	703.3	3.90	3.74	4.28	.760	12.68	8.78	1.0326
807	7-25-27	6-28 to 8-1-27	501.8	3.90	4.10	5.04	.738	13.78	9.88	1.0338
671	7-17-22	6-27 to 7-31-22	499.8	3.90	4.99	5.05	.830	14.87	10.97	1.0379
712	2-8-22	1-24 to 2-27-22	796.9	3.91	3.36	5.15	.739	13.06	9.15	1.0340
739	4-27-25	4-7 to 5-11-25	611.9	3.91	3.42	5.17	.716	13.27	9.31	1.0332
687	7-3-22	6-20 to 7-24-22	248.1	3.91	3.64	5.04	.682	13.27	9.36	1.0323
687	10-30-22	10-24 to 11-13-22	91.8	3.91	3.98	4.45	.709	13.05	9.14	1.0317
723	10-30-22	10-24 to 11-20-22	398.3	3.91	4.31	4.62	.700	13.54	9.63	1.0329
713	10-23-23	10-9 to 11-12-23	965.1	3.92	3.36	4.94	.723	12.94	9.02	1.0332
707	5-10-22	4-25 to 5-29-22	1 577.5	3.92	3.42	5.32	.685	13.34	9.42	1.0315
713	6-19-22	6-6 to 7-10-22	577.5	3.92	3.46	4.94	.736	13.06	9.11	1.0327
732	3-3-24	2-19 to 3-24-24	808.9	3.92	3.50	4.92	.692	13.03	9.13	1.0327
712	3-14-22	2-28 to 3-27-22	593.5	3.92	3.54	5.26	.710	13.44	9.52	1.0324
732	5-12-24	4-29 to 5-26-24	463.4	3.92	3.70	4.89	.690	13.21	9.29	1.0329
657	9-7-23	9-4 to 10-8-23	430.7	3.92	3.78	4.67	.694	13.06	9.14	1.0335
661	8-6-22-26	7-17 to 8-20-23	694.6	3.92	4.00	5.10	.698	13.72	9.80	1.0344
739	9-21-26	6-1 to 7-5-26	841.7	3.93	3.16	5.00	.712	12.80	8.87	1.0313
671	11-2-22	10-21 to 11-17-24	802.8	3.93	3.66	4.63	.695	12.92	8.99	1.0324
710	1-2-22	12-20 to 1-23-22	889.1	3.94	3.30	4.70	.730	12.69	8.75	1.0329
738	1-12-25	12-23-24 to 1-26-25	729.0	3.94	3.30	4.70	.706	12.70	8.76	1.0318
690	6-23-24	6-3 to 7-7-24	443.3	3.94	3.57	4.80	.700	13.01	9.07	1.0317
690	3-10-24	2-19 to 3-24-24	631.8	3.94	3.64	4.81	.712	13.10	9.16	1.0313
668	4-4-22	3-21 to 4-24-22	741.9	3.94	3.80	4.64	.770	13.15	9.21	1.0318
680	1-10-22	12-27-21 to 1-30-22	810.8	3.94	3.84	5.60	.732	14.11	10.17	1.0346

TABLE 5.—COMPOSITION OF MILK FROM GUBENSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
802	10-6-24	9-16 to 10-20-24	846.5	3.95	2.98	5.00	.652	12.58	8.63	1.0349
705	2-28-22	2-7 to 3-13-22	1 404.1	3.95	3.16	5.32	.673	13.10	9.15	1.0337
649	5-20-22	5-16 to 6-10-22	1 013.2	3.95	3.28	5.11	.758	13.08	9.13	1.0338
651	2-10-22	2-6 to 3-7-22	938.4	3.95	3.48	4.71	.723	12.86	8.91	1.0344
723	1-10-22	1-3 to 1-30-22	864.6	3.96	2.95	5.07	.720	12.94	8.98	1.0330
738	0-2-24	0-2 to 0-15-24	309.2	3.96	3.19	5.31	.720	12.95	8.98	1.0324
802	7-28-24	7-15 to 8-11-24	839.2	3.96	3.20	4.82	.697	12.68	8.72	1.0309
707	2-28-22	2-14 to 3-20-22	1 578.7	3.96	3.22	4.98	.700	12.86	8.90	1.0323
654	9-11-22	8-25 to 9-30-22	1 777.0	3.96	3.30	4.76	.702	12.72	8.76	1.0317
702	9-21-22	8-29 to 10-2-22	803.8	3.96	3.44	4.60	.701	12.70	8.74	1.0334
702	2-16-25	3-20 to 4-10-22	907.1	3.96	3.44	5.19	.761	13.35	9.39	1.0319
802	2-16-25	1-27 to 3-2-25	273.5	3.96	3.50	4.76	.665	12.88	8.92	1.0322
710	2-8-22	1-24 to 2-27-22	662.7	3.96	3.54	4.45	.729	12.68	8.72	1.0317
801	10-19-25	9-29 to 11-2-25	761.8	3.96	3.58	5.04	.724	13.30	9.34	1.0344
713	3-3-24	2-19 to 3-24-24	699.3	3.96	3.64	4.52	.720	12.84	8.88	1.0310
715	6-12-23	5-29 to 7-2-23	57.6	3.96	3.97	3.23	.723	11.88	7.92	1.0276
689	7-3-22	6-20 to 7-24-22	887.0	3.97	3.72	5.19	.724	13.60	9.63	1.0335
729	1-28-24	1-15 to 2-18-24	1 169.6	3.98	3.10	5.11	.670	12.86	8.88	1.0322
644	12-28-25	12-8-25 to 1-11-26	1 107.0	3.98	3.30	5.47	.672	13.42	9.44	1.0334
713	5-16-22	5-2 to 6-5-22	659.7	3.98	3.38	5.03	.752	13.14	9.16	1.0318
687	4-17-24	3-25 to 5-5-24	665.2	3.98	3.58	4.83	.714	13.10	9.12	1.0325
687	5-29-22	5-16 to 6-19-22	297.5	3.98	3.62	5.01	.708	13.32	9.34	1.0318
721	12-6-21	11-22 to 12-26-21	640.0	3.98	3.67	4.95	.762	13.36	9.38	1.0346
667	7-24-22	7-11 to 8-14-22	968.9	3.98	3.74	4.99	.678	13.39	9.41	1.0315
715	9-4-22	8-22 to 9-25-22	654.5	3.98	3.80	5.06	.679	13.52	9.54	1.0326
680	3-21-22	3-7 to 4-10-22	917.2	3.98	3.84	5.61	.691	14.10	10.12	1.0343
680	5-29-22	5-16 to 6-19-22	934.0	3.98	3.88	4.99	.708	13.56	9.58	1.0329
707	4-4-22	3-21 to 4-24-22	1 393.0	4.00	3.42	5.39	.703	13.51	9.51	1.0330
663	5-22-22	5-9 to 6-12-22	2 073.0	4.00	3.43	5.21	.722	13.36	9.36	1.0327
648	1-30-24	2-5 to 3-24-24	673.0	4.00	3.46	4.87	.732	13.04	9.04	1.0321
713	3-10-24	1-17 to 2-20-22	2 070.2	4.00	3.44	4.74	.746	12.46	8.46	1.0326
661	4-23-23	4-3 to 5-7-23	1 102.1	4.00	3.57	4.90	.698	13.17	9.17	1.0329
674	2-8-22	1-24 to 2-27-22	858.1	4.00	3.74	4.43	.753	12.92	8.92	1.0326
702	4-25-22	4-11 to 5-15-22	1 332.6	4.01	3.74	4.82	.719	12.64	8.63	1.0298
738	11-10-24	10-21 to 11-24-24	1 339.8	4.01	3.24	4.85	.664	12.76	8.75	1.0322
666	1-23-22	1-10 to 2-13-22	1 052.5	4.01	3.25	4.88	.759	12.70	8.69	1.0328
683	11-29-21	11-13 to 12-19-21	1 025.0	4.01	3.26	4.88	.731	12.08	8.07	1.0317
738	12-8-24	11-25 to 12-22-24	507.2	4.02	3.27	4.82	.708	12.92	8.90	1.0316
736	8-26-24	8-12 to 9-8-24	497.7	4.02	3.54	4.91	.712	12.98	8.96	1.0317
671	1-12-25	12-23-24 to 1-26-25	804.9	4.02	3.36	4.84	.720	12.94	8.92	1.0326

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat perct.	Protein perct.	Lactose perct.	Ash perct.	Total solids perct.	Solids-not-fat perct.	Specific gravity
739	12-8-24	11-18 to 12-22-24	928.1	4.02	3.41	5.09	.768	13.29	9.27	1.0344
803	7-6-25	6-10 to 7-20-25	737.3	4.02	3.44	4.85	.671	12.98	8.96	1.0310
713	4-7-24	3-25 to 4-28-24	689.5	4.02	3.44	.748	.748	13.10	9.08	1.0328
733	4-11-22	3-28 to 5-1-22	664.7	4.02	3.52	5.03	.746	13.32	9.30	1.0333
661	5-28-23	5-8 to 6-11-23	1 011.1	4.02	3.54	5.01	.718	13.29	9.27	1.0334
738	4-12-26	3-23 to 4-26-26	833.1	4.02	3.56	5.24	.798	13.62	9.60	1.0345
667	6-19-22	6-6 to 7-10-22	1 023.6	4.02	3.58	4.87	.690	13.16	9.14	1.0330
717	1-28-24	1-13 to 2-18-24	747.5	4.02	3.62	4.64	.727	13.04	9.02	1.0324
668	1-23-22	1-10-22 to 2-13-22	863.6	4.02	3.98	4.51	.794	13.30	9.28	1.0340
738	10-19-25	9-29 to 11-2-25	573.1	4.03	3.52	4.80	.726	13.08	9.05	1.0335
680	9-11-22	8-29 to 10-2-22	632.8	4.03	4.08	4.50	.718	13.33	9.30	1.0319
666	12-20-21	12-6-21 to 1-9-22	1 130.4	4.04	3.12	4.74	.762	12.66	8.62	1.0319
713	3-7-22	2-21 to 3-27-22	658.7	4.04	3.34	4.76	.742	12.88	8.84	1.0326
737	4-27-25	4-7 to 5-11-25	642.4	4.04	3.41	5.11	.695	13.26	9.22	1.0328
644	4-12-26	3-23 to 4-26-26	779.5	4.04	3.48	5.37	.650	13.54	9.50	1.0340
705	6-12-22	5-30 to 7-3-22	989.5	4.04	3.85	5.26	.673	13.82	9.78	1.0346
655	1-23-23	1-9 to 2-12-23	607.8	4.04	4.03	4.42	.731	13.22	9.18	1.0328
671	2-4-24	1-29 to 3-3-24	596.6	4.04	4.04	4.87	.732	13.68	9.64	1.0338
663	7-9-23	6-26 to 7-30-23	1 119.0	4.05	3.34	5.01	.701	13.10	9.05	1.0325
644	3-8-26	2-16 to 3-22-26	896.4	4.05	3.47	5.36	.676	13.56	9.51	1.0344
804	7-26-26	7-6 to 8-9-26	450.5	4.06	4.81	5.22	.830	14.91	10.86	1.0338
671	12-20-21	12-6 to 1-9-22	1 022.9	4.06	3.16	5.34	.742	13.30	9.24	1.0346
741	11-27-25	11-10 to 12-7-25	883.4	4.06	3.36	5.20	.796	13.42	9.36	1.0355
687	2-14-22	1-31 to 3-6-22	238.2	4.06	3.58	4.49	.724	12.85	8.79	1.0321
732	1-28-24	1-13 to 2-18-24	879.6	4.06	3.62	4.81	.708	13.20	9.14	1.0324
667	4-11-22	3-28 to 5-1-22	1 304.7	4.06	3.65	5.29	.739	13.74	9.68	1.0330
687	1-10-22	12-27-21 to 1-30-22	286.7	4.06	3.76	4.91	.730	13.46	9.40	1.0332
713	8-28-22	8-15 to 9-18-22	557.5	4.06	3.78	5.09	.682	13.68	9.62	1.0333
705	8-21-22	8-8 to 9-11-22	773.9	4.06	4.08	5.16	.680	13.98	9.92	1.0332
735	6-23-24	6-3 to 7-7-24	668.0	4.07	3.44	5.15	.736	14.32	10.31	1.0326
689	9-11-22	8-29 to 10-2-22	718.7	4.07	3.46	4.57	.736	14.52	10.35	1.0350
666	11-15-21	11-1 to 12-5-21	1 203.1	4.08	3.35	4.57	.780	12.78	8.70	1.0336
713	9-17-23	9-4 to 10-8-23	1 097.0	4.08	3.36	5.21	.746	13.40	8.32	1.0330
651	11-22-21	11-3 to 12-9-21	926.9	4.08	3.60	4.58	.764	13.02	8.94	1.0327
666	5-10-22	4-23 to 5-29-22	907.4	4.08	3.64	4.86	.759	13.84	9.26	1.0306
713	12-11-22	11-28-22 to 1-1-23	898.5	4.08	3.64	4.90	.738	13.36	9.28	1.0331
724	2-12-23	1-30 to 3-5-23	987.7	4.08	3.68	4.96	.728	13.45	9.37	1.0351
727	10-23-23	10-16 to 11-12-23	387.8	4.08	3.68	5.01	.712	13.48	9.40	1.0340
674	6-26-22	6-13 to 7-17-22	855.0	4.08	3.72	5.18	.742	13.72	9.64	1.0333
737	8-10-25	7-21 to 8-24-25	645.6	4.08	3.75	5.16	.714	13.70	9.62	1.0339

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat per cent.	Protein per cent.	Lactose per cent.	Ash per cent.	Total solids per cent.	Solids-not-fat per cent.	Specific gravity
739	9-14-25	8-25 to 9-28-25	412.9	4.08	3.87	5.14	.788	13.88	9.80	1.0359
663	9-10-23	9-4 to 10-8-23	859.3	4.08	4.01	4.57	.756	13.42	9.34	1.0328
683	6-4-23	5-15 to 6-15-23	275.3	4.08	4.34	4.78	.784	13.98	9.90	1.0344
649	4-25-22	4-11 to 5-15-22	1 123.1	4.09	3.36	5.05	.725	13.92	9.13	1.0331
687	4-25-22	4-11 to 5-15-22	308.8	4.09	3.70	4.81	.709	13.51	9.22	1.0319
729	12-24-23	12-11 to 1-14-24	1 285.3	4.10	3.48	5.11	.666	13.06	8.96	1.0324
739	8-30-26	8-10 to 9-13-26	465.3	4.10	3.47	4.96	.720	13.25	9.15	1.0290
689	3-21-22	3-7 to 4-10-22	1 360.4	4.10	3.48	5.68	.750	14.01	9.91	1.0331
667	5-16-22	5-9 to 6-5-22	1 237.9	4.10	3.51	5.10	.709	13.42	9.32	1.0331
649	7-22-24	7-25 to 8-28-22	767.7	4.10	3.64	4.87	.748	13.30	9.20	1.0323
732	1-21-24	7-1 to 8-4-24	496.5	4.10	3.84	4.68	.683	13.10	9.00	1.0317
631	1-30-22	1-14 to 2-1-22	407.8	4.10	3.65	4.78	.726	13.26	9.16	1.0332
730	3-3-24	2-19 to 3-24-24	933.4	4.12	3.32	5.04	.702	13.18	9.06	1.0318
736	9-29-24	9-9 to 10-13-24	576.7	4.12	3.43	4.83	.682	13.06	8.94	1.0320
732	4-7-24	3-25 to 4-28-24	717.6	4.12	3.48	4.97	.717	13.29	9.17	1.0330
720	2-28-22	2-14 to 3-20-22	438.8	4.12	3.65	4.59	.771	13.13	9.01	1.0312
659	8-20-23	8-7 to 9-3-23	245.1	4.12	3.66	4.07	.692	12.54	8.42	1.0291
644	5-17-26	4-27 to 5-31-26	782.5	4.12	3.68	5.05	.650	13.50	9.38	1.0312
651	5-16-22	4-29 to 6-1-22	692.0	4.12	3.68	5.16	.715	13.68	9.56	1.0320
665	5-7-23	4-17 to 5-21-23	494.7	4.12	3.80	4.42	.719	13.06	8.94	1.0306
702	10-30-22	10-24 to 11-20-22	551.1	4.12	3.88	4.52	.703	13.22	9.10	1.0321
801	7-26-26	7-6 to 8-9-26	567.1	4.12	3.93	4.93	.756	13.74	9.62	1.0296
683	3-14-22	2-28 to 4-3-22	633.7	4.12	3.88	4.42	.703	13.22	9.10	1.0321
663	10-9-22	9-26 to 10-30-22	904.6	4.13	4.16	5.19	.790	14.26	10.14	1.0352
663	1-2-22	12-20 to 1-1-23-22	1 735.4	4.14	2.72	4.96	.702	12.52	8.38	1.0335
649	1-10-22	1-4 to 1-30-22	891.5	4.14	3.24	5.17	.762	13.31	9.17	1.0334
728	4-18-24	4-1 to 4-28-24	602.0	4.14	3.42	4.92	.666	13.15	9.01	1.0322
735	5-19-24	5-6 to 6-2-24	586.8	4.14	3.50	5.07	.706	13.42	9.28	1.0332
651	4-30-23	4-11 to 5-13-23	790.2	4.14	3.51	4.77	.736	13.16	9.02	1.0325
737	7-6-25	6-16 to 7-20-25	659.7	4.14	3.54	4.99	.714	13.38	9.24	1.0319
738	7-24-22	6-16 to 7-20-25	594.7	4.14	3.56	4.60	.725	13.02	8.88	1.0329
713	7-24-22	7-11 to 8-14-22	545.4	4.14	3.60	4.81	.772	13.28	9.14	1.0327
673	7-0-23	6-19 to 7-23-23	834.6	4.14	3.66	4.80	.689	13.51	9.17	1.0329
657	11-26-23	11-6 to 12-10-23	284.4	4.14	3.80	4.21	.689	12.84	8.70	1.0310
724	6-1-25	5-12 to 6-15-25	560.8	4.14	3.90	4.90	.718	13.66	9.52	1.0316
687	10-16-22	10-3 to 10-23-22	96.6	4.15	3.08	4.44	.704	13.36	9.22	1.0316
710	11-13-22	10-24 to 11-27-22	1 341.6	4.15	3.16	4.85	.707	12.87	8.72	1.0318
671	11-13-22	10-31 to 12-4-22	1 910.4	4.15	3.63	5.07	.737	13.59	9.44	1.0341
666	4-4-22	3-21 to 4-24-22	919.7	4.15	3.70	4.90	.772	13.52	9.37	1.0317
683	11-6-22	10-17 to 11-20-22	557.8	4.15	3.86	4.25	.686	12.95	8.80	1.0305

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
803	2-16-25	1-27 to 3-2-25	891.8	4.16	3.06	5.00	.624	12.84	8.68	1.0312
739	1-12-25	12-23-24 to 1-26-25	990.9	4.16	3.21	5.21	.754	13.33	9.17	1.0341
711	2-28-22	2-14 to 3-20-22	838.3	4.16	3.32	4.53	.748	12.76	8.60	1.0310
803	3-23-25	3-3 to 4-6-25	779.4	4.16	3.34	4.83	.653	12.98	8.82	1.0317
739	3-23-25	3-3 to 4-6-25	703.6	4.16	3.36	5.19	.714	13.42	9.06	1.0336
720	8-13-23	7-31 to 9-3-23	688.8	4.16	3.49	4.90	.674	13.22	9.06	1.0311
720	8-13-23	7-31 to 9-3-23	715.4	4.16	3.49	4.96	.724	13.34	9.18	1.0327
650	7-4-24	6-16 to 7-17-23	590.2	4.16	3.51	4.95	.670	12.84	8.68	1.0322
651	7-4-24	6-16 to 7-17-23	590.2	4.16	3.51	4.90	.680	13.36	9.20	1.0320
651	8-28-22	8-8 to 9-11-22	623.0	4.16	3.62	4.90	.686	13.08	8.92	1.0318
651	8-13-23	7-18 to 7-24-24	301.3	4.16	3.62	5.01	.692	13.51	9.35	1.0330
735	7-21-24	10-24 to 11-27-22	895.1	4.16	3.74	4.94	.748	13.59	9.43	1.0340
720	11-6-22	5-30 to 7-3-22	827.3	4.16	3.74	5.13	.750	13.78	9.62	1.0334
713	6-12-22	7-18 to 8-21-22	806.9	4.16	3.94	5.07	.734	13.90	9.74	1.0334
674	7-31-22	11-20 to 12-24-23	478.5	4.16	4.36	4.61	.784	13.91	9.75	1.0346
690	11-26-23	8-1 to 9-4-22	241.0	4.16	5.08	4.71	.772	14.72	10.56	1.0342
671	8-21-22	2-2 to 3-24-22	1 075.0	4.17	3.52	5.00	.714	13.40	9.23	1.0334
651	3-7-22	11-1 to 12-5-21	666.1	4.17	3.56	4.74	.762	13.23	9.06	1.0336
720	11-15-21	2-14 to 3-20-22	350.1	4.17	4.02	4.67	.760	13.62	9.45	1.0316
653	2-28-22	2-13 to 3-12-23	1 149.0	4.18	3.12	5.17	.708	13.18	9.00	1.0341
657	2-26-23	1-12 to 2-15-26	819.9	4.18	3.35	5.23	.760	13.52	9.34	1.0326
741	2-1-26	7-6 to 8-9-26	579.7	4.18	3.38	5.02	.750	13.33	9.15	1.0291
671	12-18-22	12-5-22 to 1-8-23	1 871.7	4.18	3.45	4.96	.699	13.29	9.11	1.0335
665	4-2-23	3-13 to 4-16-23	447.6	4.18	3.80	4.66	.732	13.37	9.19	1.0322
674	3-14-22	2-28 to 4-3-22	835.9	4.18	3.80	5.30	.760	14.04	9.86	1.0343
707	9-10-23	8-28 to 10-1-23	982.8	4.18	3.84	4.56	.670	13.25	9.07	1.0322
665	8-20-23	7-31 to 9-3-23	408.1	4.18	3.92	4.80	.680	13.58	9.40	1.0314
724	12-24-23	12-11-23 to 1-14-24	680.9	4.18	4.00	4.94	.696	13.82	9.64	1.0338
671	4-18-24	4-9 to 4-28-24	120.8	4.18	4.36	4.63	.707	13.88	9.70	1.0328
803	6-1-25	5-12 to 6-15-25	760.0	4.19	3.58	4.64	.648	13.06	8.87	1.0315
713	4-7-24	3-25 to 4-28-24	620.1	4.19	3.64	4.32	.706	12.86	8.67	1.0320
680	5-28-23	5-15 to 6-18-23	163.7	4.19	3.74	4.14	.683	12.75	8.56	1.0295
730	4-7-24	3-25 to 4-28-24	855.7	4.20	3.74	5.04	.716	13.12	8.92	1.0322
674	1-2-22	12-27-21 to 1-23-22	700.7	4.20	3.68	4.80	.770	13.45	9.25	1.0354
651	4-11-22	3-25 to 4-28-22	741.9	4.20	3.75	5.12	.772	13.84	9.64	1.0333
666	7-17-22	7-4 to 8-7-22	550.2	4.20	4.01	4.81	.732	13.72	9.52	1.0334
723	1-8-23	12-26-22 to 1-29-23	404.9	4.20	4.60	4.40	.733	13.93	9.73	1.0337
705	4-4-22	3-14 to 4-24-22	1 550.3	4.21	3.58	5.52	.713	14.02	9.81	1.0343
653	1-23-22	1-10 to 2-13-22	376.8	4.21	4.24	4.33	.804	13.58	9.37	1.0328

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
683	7-2-23	6-16 to 7-16-23	104.3	4.21	4.69	4.80	8.10	14.51	10.30	1.0354
715	6-26-22	6-13 to 7-17-22	734.9	4.22	3.50	5.23	.694	8.10	10.30	1.0327
713	1-15-23	1-2 to 2-5-23	825.7	4.22	3.62	4.86	.756	13.46	9.24	1.0337
724	5-28-23	5-15 to 6-18-23	825.3	4.22	3.82	5.24	.740	14.02	9.80	1.0345
730	5-12-24	4-29 to 5-26-24	714.0	4.23	3.46	4.84	.712	13.24	9.01	1.0326
737	6-1-25	5-12 to 6-15-25	655.2	4.23	3.61	4.96	.700	13.50	9.27	1.0337
665	2-26-23	2-6 to 3-12-23	478.6	4.23	4.02	4.41	.720	13.38	9.15	1.0320
665	11-13-22	10-24 to 11-27-22	853.7	4.23	4.21	4.62	.700	13.76	9.53	1.0334
665	5-22-22	5-2 to 6-5-22	1 808.9	4.24	3.00	4.91	.706	12.86	8.62	1.0309
711	4-4-22	3-21 to 4-24-22	829.2	4.24	3.54	5.03	.749	12.86	8.62	1.0318
705	5-10-22	4-25 to 5-29-22	1 753.5	4.24	3.68	5.39	.692	14.00	9.76	1.0338
650	2-8-22	1-24 to 2-27-22	1 150.6	4.24	3.74	5.11	.747	13.26	9.02	1.0328
801	12-8-24	11-25-24 to 1-5-25	333.3	4.24	3.80	5.11	.708	13.27	9.03	1.0318
720	8-21-22	8-8 to 9-11-22	636.9	4.24	3.96	5.15	.742	13.95	9.71	1.0332
665	10-0-22	9-19 to 10-23-22	972.8	4.24	4.25	4.74	.722	13.48	8.93	1.0326
735	7-28-24	7-25 to 8-11-24	298.1	4.25	3.44	5.12	.670	13.16	8.91	1.0316
657	10-23-23	10-9 to 11-5-23	916.3	4.26	3.80	4.40	.711	13.09	8.93	1.0308
733	3-3-24	2-19 to 3-24-24	1 026.5	4.26	3.18	5.03	.702	13.00	8.74	1.0316
730	1-28-24	1-15 to 2-18-24	813.2	4.26	3.36	5.30	.700	13.62	9.36	1.0331
735	3-26-23	3-8 to 4-5-23	894.5	4.26	3.48	4.80	.720	13.18	8.92	1.0322
651	12-27-21	12-10-21 to 1-13-22	1 099.7	4.26	3.58	5.17	.712	13.72	9.46	1.0342
720	4-30-23	4-17 to 5-21-23	945.3	4.26	3.48	4.80	.735	13.82	9.02	1.0323
665	7-10-23	6-26 to 7-30-23	446.8	4.26	3.70	4.33	.652	12.94	8.68	1.0303
721	2-14-22	1-31 to 3-6-22	682.1	4.26	3.70	4.81	.738	13.51	9.25	1.0323
713	12-24-23	12-18 to 12-24-23	172.0	4.26	3.70	4.92	.720	13.60	9.34	1.0331
707	12-24-23	12-11-23 to 1-7-24	491.0	4.26	3.90	4.84	.651	13.65	9.39	1.0335
653	6-12-22	5-30 to 7-3-22	259.5	4.26	4.11	4.73	.724	13.82	9.56	1.0323
674	9-4-22	8-22 to 9-25-22	779.5	4.26	4.14	5.06	.738	14.20	9.94	1.0337
671	3-10-24	3-4 to 4-8-24	402.3	4.26	4.28	4.76	.743	14.04	9.78	1.0337
674	5-22-22	5-9 to 6-12-22	941.0	4.27	3.82	5.24	.750	14.00	9.73	1.0344
724	3-19-23	3-6 to 4-9-23	942.5	4.27	3.82	4.97	.726	13.79	9.52	1.0341
689	5-29-22	5-16 to 6-19-22	1 094.0	4.27	3.88	5.37	.704	14.22	9.95	1.0343
655	2-26-23	2-13 to 3-19-23	623.7	4.27	4.00	4.54	.754	13.56	9.29	1.0326
707	11-19-23	11-6 to 12-10-23	683.5	4.27	4.02	4.60	.672	13.56	8.92	1.0333
730	12-24-23	12-11-23 to 1-14-24	1 075.2	4.28	3.16	5.03	.726	13.20	8.92	1.0316
670	2-14-22	1-31 to 3-6-22	1 133.7	4.28	3.23	5.31	.736	13.56	9.28	1.0331
742	6-21-26	6-1 to 7-5-26	673.2	4.28	3.30	5.15	.743	13.47	9.19	1.0311
670	5-29-22	5-16 to 6-19-22	1 129.6	4.28	3.36	5.39	.722	13.75	9.47	1.0327

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat perct.	Protein perct.	Lactose perct.	Ash perct.	Total solids perct.	Solids-not-fat perct.	Specific gravity
711	6-12-22	5-30 to 7-3-22	804.2	4.28	3.53	5.04	.728	13.58	9.30	1.0327
668	12-20-21	12-6-21 to 1-9-22	933.5	4.28	3.59	4.81	.730	13.43	9.15	1.0307
724	12-8-24	11-18 to 12-22-24	724.9	4.28	3.62	4.87	.688	13.46	9.18	1.0331
705	7-17-22	7-4 to 8-7-22	820.9	4.28	3.68	5.11	.664	13.73	9.45	1.0334
659	7-16-23	7-3 to 8-6-23	337.7	4.28	3.69	4.15	.740	12.66	8.58	1.0298
724	2-16-25	1-27 to 3-2-25	592.5	4.28	3.71	4.98	.691	13.66	9.38	1.0341
644	8-30-26	8-10 to 9-20-26	656.1	4.28	3.71	5.26	.632	13.88	9.60	1.0294
735	8-26-24	8-12 to 9-8-24	405.7	4.28	3.80	5.01	.688	13.78	9.50	1.0330
735	7-17-22	7-4 to 8-7-22	418.9	4.28	3.80	5.05	.712	13.84	9.56	1.0328
620	6-26-22	6-13 to 7-17-22	593.1	4.28	3.84	5.00	.750	13.87	9.59	1.0322
737	9-2-24	8-12 to 9-15-24	1 000.1	4.29	2.88	5.16	.674	13.00	8.71	1.0311
710	12-18-22	11-28-22 to 1-1-23	1 051.9	4.29	3.56	4.60	.714	13.16	8.87	1.0316
649	12-27-21	12-12-21 to 1-3-22	419.0	4.29	3.94	4.93	.860	14.02	9.73	1.0350
655	4-2-23	3-20 to 4-16-23	503.4	4.29	3.98	4.48	.751	13.50	9.21	1.0324
726	11-19-23	11-6 to 12-10-23	1 136.8	4.30	3.12	5.05	.668	13.14	8.84	1.0320
715	7-31-22	7-18 to 8-21-22	696.2	4.30	3.43	5.23	.696	13.66	9.36	1.0322
651	6-4-23	5-14 to 6-15-23	720.0	4.30	3.44	4.93	.734	13.40	9.10	1.0320
742	5-17-26	4-27 to 5-31-26	846.5	4.30	3.54	5.23	.768	13.84	9.54	1.0314
673	8-13-23	7-24 to 8-27-23	773.2	4.30	3.64	4.91	.666	13.52	9.22	1.0313
665	6-12-23	5-22 to 6-25-23	481.5	4.30	3.84	4.39	.698	13.23	8.93	1.0306
720	4-4-22	3-21 to 4-24-22	430.2	4.30	3.96	4.93	.762	13.95	9.65	1.0325
667	8-28-22	8-15 to 9-18-22	1 004.5	4.30	4.16	4.82	.718	14.00	9.70	1.0337
714	5-16-22	5-2 to 6-5-22	1 024.7	4.31	3.50	5.39	.766	13.97	9.66	1.0329
673	3-7-22	2-14 to 3-20-22	1 549.8	4.32	2.75	5.24	.724	13.03	8.71	1.0310
741	3-8-26	2-16 to 3-22-26	839.3	4.32	3.30	5.42	.762	13.80	9.48	1.0300
702	5-28-23	5-15 to 6-18-23	375.0	4.32	3.74	4.20	.718	12.98	8.66	1.0321
687	19-31-23	12-11-23 to 1-14-24	251.4	4.32	3.89	4.29	.750	13.18	8.84	1.0292
715	5-7-23	4-24 to 5-28-23	87.4	4.32	4.17	4.73	.816	14.04	9.72	1.0318
739	11-8-26	10-19 to 11-5-26	192.5	4.32	3.52	5.26	.712	13.82	9.49	1.0337
727	11-26-23	1-13 to 12-10-23	382.3	4.33	3.83	5.07	.714	13.91	9.61	1.0332
680	2-14-22	1-31 to 3-6-22	870.4	4.33	3.92	4.33	.736	13.32	8.99	1.0322
683	1-15-23	12-26-22 to 1-29-23	432.2	4.33	4.30	4.86	.771	14.26	9.93	1.0366
738	11-23-25	11-3 to 12-7-25	479.6	4.33	3.39	5.07	.698	13.46	9.72	1.0339
707	3-19-23	3-6 to 4-9-23	1 580.8	4.34	3.54	5.45	.740	14.07	9.73	1.0339
689	4-25-22	4-11 to 5-15-22	1 272.9	4.34	3.70	5.03	.718	13.79	9.45	1.0347
720	6-4-23	5-22 to 6-25-23	916.6	4.34	3.90	4.53	.735	13.76	9.42	1.0304
702	10-16-22	10-3 to 10-23-22	442.9	4.34	4.00	4.68	.735	13.76	9.42	1.0337
663	12-24-23	12-18-23 to 1-21-24	562.6	4.34	4.34	5.27	.744	14.69	10.35	1.0352
674	10-9-22	9-26 to 10-30-22	658.6	4.34	4.00	5.27	.744	14.69	10.35	1.0337
689	10-16-22	10-3 to 10-23-22	362.7	4.34	4.86	5.00	.745	14.91	10.60	1.0356

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
724	9-20-24	9-9 to 10-13-24	920.1	4.35	3.60	5.01	.686	13.65	9.30	1.0328
707	10-16-23	10-2 to 11-5-23	769.1	4.35	4.14	4.62	.674	13.78	9.43	1.0329
689	10-30-22	10-24 to 11-20-22	458.8	4.35	4.62	4.83	.737	14.54	10.19	1.0352
713	5-12-24	4-29 to 5-26-24	448.1	4.36	3.74	4.66	.716	13.48	9.12	1.0326
710	10-2-22	9-19 to 10-23-22	813.7	4.36	3.75	5.02	.746	13.88	9.52	1.0340
684	4-25-22	4-11 to 5-15-22	920.5	4.36	3.79	5.19	.724	14.06	9.70	1.0340
644	10-7-26	9-21 to 10-25-26	470.8	4.36	3.96	5.15	.710	14.18	9.82	1.0361
687	12-6-21	11-22 to 12-26-21	318.2	4.36	3.98	4.61	.752	13.70	9.34	1.0339
653	5-10-22	4-25 to 5-29-22	339.5	4.36	4.08	4.81	.745	13.99	9.63	1.0308
724	11-19-23	11-6 to 12-10-23	673.9	4.36	4.08	4.80	.705	14.04	9.68	1.0347
723	2-12-23	1-30 to 3-5-23	364.9	4.36	4.34	4.59	.732	14.02	9.66	1.0347
724	9-10-23	8-28 to 10-1-23	833.3	4.37	3.78	5.05	.715	13.92	9.55	1.0332
715	10-9-22	9-26 to 10-30-22	583.6	4.37	4.05	5.28	.695	14.40	10.03	1.0342
661	12-4-22	11-21 to 12-25-22	746.9	4.38	3.11	5.13	.692	13.31	8.93	1.0331
690	7-28-24	7-8 to 8-11-24	392.9	4.38	3.62	4.82	.682	13.50	9.12	1.0313
724	3-23-25	3-3 to 4-6-25	563.1	4.38	3.76	4.87	.690	13.70	9.32	1.0327
651	7-24-22	7-11 to 8-11-22	367.7	4.38	4.12	5.02	.715	14.24	9.86	1.0329
663	10-15-23	10-9 to 11-12-23	661.0	4.38	4.28	4.58	.732	13.91	9.53	1.0333
653	4-4-22	3-21 to 4-24-22	361.1	4.38	4.26	4.70	.787	14.13	9.75	1.0344
707	9-25-22	9-12 to 10-16-22	578.1	4.38	4.38	5.09	.688	14.44	10.06	1.0330
663	11-13-22	10-31 to 12-4-22	337.8	4.38	4.43	4.66	.733	14.32	9.77	1.0341
680	10-16-22	10-3 to 10-23-22	337.8	4.38	4.38	4.70	.721	14.32	9.94	1.0336
671	6-23-24	5-27 to 7-27-22	551.5	4.39	4.31	5.08	.718	14.50	10.11	1.0331
711	7-17-22	7-4 to 8-7-22	808.5	4.40	3.24	4.95	.708	13.30	8.90	1.0310
711	5-10-22	4-25 to 5-29-22	745.4	4.40	3.36	5.03	.676	13.47	9.07	1.0319
724	8-6-23	7-24 to 8-27-23	900.3	4.40	3.51	5.13	.737	13.78	9.38	1.0323
688	5-7-23	4-24 to 5-28-23	1 021.5	4.40	3.60	5.16	.694	13.76	9.26	1.0339
711	8-21-22	8-8 to 9-11-22	728.8	4.40	3.98	5.03	.712	13.82	9.42	1.0317
805	4-12-26	3-23 to 4-26-26	560.9	4.40	3.74	5.62	.676	14.44	10.04	1.0349
727	3-10-24	2-19 to 3-17-24	221.4	4.40	3.86	4.93	.692	13.88	9.48	1.0320
711	1-30-23	1-10 to 2-14-23	314.4	4.40	4.06	3.72	.790	12.97	8.57	1.0302
655	7-30-22	1-24 to 2-20-22	945.3	4.40	4.41	4.75	.845	14.40	10.00	1.0365
685	7-16-23	6-26 to 7-23-23	123.0	4.40	5.02	3.88	.750	13.46	9.06	1.0307
661	9-10-23	8-21 to 9-17-23	143.4	4.40	4.40	4.48	.802	14.70	10.30	1.0355
730	7-21-24	7-1 to 8-4-24	716.1	4.41	3.95	5.10	.770	14.23	9.82	1.0345
663	11-19-23	11-13 to 12-17-23	646.5	4.41	4.02	4.67	.716	13.82	9.41	1.0337
649	2-14-22	1-31 to 3-6-22	1 128.2	4.42	3.09	5.34	.694	13.54	9.12	1.0340
741	12-28-25	12-8-25 to 1-11-26	867.4	4.42	3.18	5.49	.750	13.84	9.42	1.0336
728	11-26-23	11-13 to 12-17-23	953.3	4.42	3.20	5.29	.676	13.59	9.17	1.0325

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
803	4-27-25	4-7 to 5-11-25	690.6	4.42	3.29	4.92	.672	13.30	8.88	1.0311
803	8-10-25	7-21 to 8-24-25	715.5	4.42	3.40	5.30	.678	13.80	9.38	1.0321
802	1-12-25	12-23-24 to 1-26-25	452.3	4.42	3.52	4.82	.670	13.43	9.01	1.0323
655	12-18-22	11-28 to 1-8-23	844.5	4.42	3.76	4.62	.706	13.51	9.09	1.0337
724	4-23-23	4-10 to 5-14-23	927.5	4.42	3.81	5.02	.711	13.96	9.54	1.0339
649	10-16-22	10-3 to 10-23-22	399.5	4.42	4.14	3.99	.760	14.07	9.65	1.0347
723	3-19-23	3-6 to 4-9-23	375.0	4.42	4.30	4.66	.697	14.08	9.66	1.0334
712	11-22-21	11-8 to 11-28-21	195.9	4.42	4.48	4.20	.796	13.90	9.48	1.0350
659	6-12-23	5-22 to 7-2-23	485.0	4.43	3.72	4.27	.679	13.10	8.67	1.0300
738	2-1-26	1-12 to 1-15-26	765.9	4.44	3.42	4.98	.734	13.57	9.13	1.0326
724	1-8-23	12-26-22 to 1-29-23	1 081.2	4.44	3.58	5.09	.728	13.84	9.40	1.0342
739	10-7-26	9-14 to 10-18-26	390.8	4.44	3.75	4.90	.726	13.82	9.38	1.0332
668	2-28-22	2-14 to 3-20-22	825.3	4.44	3.83	4.21	.784	13.26	8.82	1.0316
688	7-31-22	7-13 to 8-21-22	554.1	4.44	3.84	5.20	.738	14.22	9.78	1.0329
688	6-26-22	6-13 to 7-17-22	574.7	4.44	3.90	5.53	.746	14.56	10.12	1.0340
720	1-23-22	1-10 to 1-13-22	458.6	4.44	4.06	4.47	.705	13.61	9.17	1.0340
680	4-23-23	4-10 to 5-14-23	208.3	4.44	4.10	4.30	.704	13.50	9.06	1.0303
665	1-23-23	1-2 to 2-5-23	500.9	4.44	4.21	4.49	.738	13.77	9.33	1.0322
668	7-17-22	7-4 to 8-7-22	569.6	4.44	4.21	4.84	.762	14.25	9.81	1.0337
723	12-4-22	11-21 to 12-25-22	461.3	4.44	4.31	4.59	.695	14.04	9.60	1.0338
670	1-10-22	1-3 to 1-3-22	919.4	4.45	3.15	5.24	.722	13.56	9.11	1.0329
702	7-2-22	6-19 to 7-23-22	287.6	4.45	3.98	4.71	.696	13.84	9.39	1.0314
689	12-4-22	11-21 to 12-25-22	446.3	4.45	4.90	4.65	.735	14.74	10.29	1.0354
737	2-16-23	1-27 to 3-2-25	680.1	4.46	3.50	5.10	.718	13.78	9.32	1.0338
688	9-16-23	7-3 to 8-6-23	920.2	4.46	3.56	4.93	.701	13.65	9.19	1.0324
659	9-17-23	9-4 to 10-8-23	295.0	4.46	3.68	4.50	.684	13.69	8.86	1.0302
714	11-22-21	11-8 to 12-12-21	675.1	4.46	3.80	4.64	.788	13.62	9.23	1.0348
801	10-6-24	9-16 to 10-20-24	564.2	4.46	3.86	5.02	.736	14.08	9.62	1.0348
674	12-6-21	11-22 to 12-26-21	867.9	4.46	3.90	4.88	.787	14.03	9.57	1.0349
671	10-23-23	10-16 to 11-19-23	805.6	4.46	3.94	4.52	.717	13.64	9.18	1.0329
711	11-6-22	10-17 to 11-20-22	669.6	4.46	4.02	4.48	.703	13.66	9.20	1.0316
739	11-23-25	11-3 to 12-7-25	267.8	4.46	4.04	5.18	.742	14.42	9.96	1.0365
723	4-23-23	4-10 to 5-14-23	374.2	4.46	4.28	4.95	.713	14.40	9.94	1.0338
803	5-17-26	4-27 to 5-31-26	324.2	4.46	4.88	5.57	.729	15.64	11.18	1.0325
726	12-24-23	12-11-23 to 1-14-24	1 003.8	4.47	3.42	4.99	.702	13.58	9.11	1.0328
659	4-17-22	4-4 to 5-1-22	784.5	4.47	3.60	5.51	.666	14.25	9.78	1.0340
655	5-7-23	4-17 to 5-21-23	636.0	4.47	3.86	4.69	.742	13.76	9.29	1.0327
724	4-27-25	4-7 to 5-11-25	502.6	4.47	3.94	4.77	.720	13.90	9.43	1.0328
659	10-9-22	9-19 to 10-23-22	676.8	4.47	3.94	5.00	.692	14.10	9.63	1.0330
736	4-7-24	3-13 to 4-21-24	951.2	4.48	3.28	5.04	.756	13.56	9.08	1.0338

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat per cent.	Protein per cent.	Lactose per cent.	Ash per cent.	Total solids per cent.	Solids-not-fat per cent.	Specific gravity
804	12-8-24	11-18 to 12-22-24	1 107.1	4.48	3.39	5.01	.682	13.56	9.08	1.0332
711	1-23-22	1-10 to 2-13-22	865.2	4.48	3.40	4.57	.751	13.20	8.72	1.0329
661	7-2-23	6-12 to 7-16-23	857.2	4.48	3.52	4.87	.688	13.56	9.08	1.0325
725	7-21-24	7-1 to 8-4-24	651.3	4.48	3.64	5.06	.676	13.86	9.38	1.0328
728	7-28-24	7-8 to 8-11-24	720.5	4.48	3.82	5.10	.715	14.12	9.64	1.0328
801	12-28-25	12-8-25 to 1-11-26	1 005.8	4.48	3.86	5.12	.713	14.17	9.69	1.0334
668	8-20-23	8-7 to 9-3-23	670.1	4.48	3.87	4.84	.741	13.93	9.45	1.0332
668	6-12-22	5-30 to 7-3-22	770.3	4.48	3.97	4.74	.781	13.97	9.49	1.0322
661	12-27-21	12-13-21 to 1-16-22	322.3	4.48	4.16	4.20	.770	13.61	9.13	1.0320
9-17-23	9-4 to 10-8-23	9-4 to 10-8-23	273.1	4.48	4.58	4.22	.678	13.96	9.48	1.0320
665	12-4-22	11-28 to 12-25-22	369.0	4.48	4.58	4.74	.716	14.52	10.04	1.0343
680	4-25-22	4-11 to 5-15-22	1 144.2	4.48	3.58	5.21	.738	14.02	9.53	1.0340
673	10-2-22	9-12 to 10-16-22	1 156.3	4.49	3.68	4.95	.702	13.82	9.33	1.0332
713	4-30-23	4-17 to 5-21-23	895.4	4.49	3.77	5.12	.745	13.98	9.49	1.0343
739	2-1-26	1-12 to 2-15-26	595.5	4.49	3.77	5.12	.724	14.10	9.61	1.0349
668	5-10-22	4-25 to 5-29-22	839.6	4.49	4.00	4.74	.696	14.01	9.52	1.0322
732	12-24-23	12-1-23 to 1-14-24	1 014.0	4.50	3.21	5.17	.782	13.92	9.08	1.0337
734	10-15-23	10-2 to 11-5-23	372.2	4.50	3.92	4.82	.678	13.58	9.42	1.0333
738	8-30-26	8-10 to 9-13-26	748.8	4.50	3.94	5.05	.749	14.24	9.74	1.0290
713	10-2-22	9-19 to 10-23-22	732.2	4.50	4.09	4.96	.774	14.32	9.82	1.0349
724	1-28-24	1-15 to 2-18-24	670.9	4.50	4.29	4.71	.716	14.22	9.72	1.0340
673	7-24-22	7-4 to 8-7-22	978.7	4.51	2.84	5.15	.644	13.14	8.63	1.0302
725	12-24-23	12-11-23 to 1-14-24	937.4	4.51	3.50	5.35	.704	14.06	9.55	1.0352
688	6-12-23	5-29 to 7-2-23	985.8	4.51	3.88	5.01	.736	14.14	9.63	1.0341
707	10-6-22	10-17 to 11-13-22	491.1	4.51	4.42	5.03	.666	14.63	10.12	1.0352
737	10-6-24	9-16 to 10-20-24	967.0	4.52	2.84	5.31	.658	13.33	8.81	1.0315
601	2-12-23	1-23 to 2-26-23	1 468.6	4.52	3.34	5.22	.708	13.79	9.27	1.0344
639	8-8-22	1-17 to 2-27-22	915.4	4.52	3.39	5.03	.649	13.59	9.07	1.0344
730	6-16-24	5-27 to 6-30-24	1 006.0	4.52	3.60	5.29	.704	13.91	9.39	1.0334
713	2-19-23	2-6 to 3-12-23	755.8	4.52	3.60	4.94	.730	13.79	9.27	1.0340
652	3-7-22	2-21 to 3-20-22	154.0	4.52	3.64	3.49	.766	12.42	7.90	1.0280
711	5-22-22	5-9 to 6-12-22	421.3	4.52	3.90	4.83	.729	13.98	7.90	1.0280
710	3-26-23	3-6 to 4-9-23	382.6	4.52	4.00	3.91	.748	13.18	8.66	1.0300
713	6-16-24	5-27 to 6-30-24	431.7	4.52	4.08	5.00	.734	14.33	9.81	1.0351
724	3-3-24	2-19 to 3-24-24	649.0	4.52	4.20	4.82	.724	14.26	9.74	1.0337
2-19-23	2-6 to 3-12-23	2-6 to 3-12-23	631.4	4.52	4.26	4.69	.766	14.24	9.72	1.0340
663	3-3-24	2-26 to 3-31-24	175.7	4.52	4.28	4.33	.748	13.88	9.36	1.0321
689	2-12-23	1-30 to 3-5-23	158.0	4.52	5.06	3.80	.767	14.15	9.63	1.0335
737	3-23-25	3-8 to 4-6-25	653.1	4.53	3.56	5.05	.701	13.84	9.31	1.0334
673	11-6-22	10-17 to 11-20-22	1 077.9	4.53	3.87	4.70	.705	13.80	9.27	1.0329
705	11-6-22	10-17 to 11-20-22	451.4	4.53	4.58	4.59	.722	14.42	9.89	1.0337

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				percl.	percl.	percl.	percl.	percl.	percl.	
728	6-23-24	6-3 to 7-7-24	759.4	4.54	3.60	5.18	.696	14.02	9.48	1.0325
725	5-12-24	4-29 to 5-26-24	654.9	4.54	3.82	5.18	.676	14.22	9.68	1.0339
711	1-15-23	12-26-22 to 1-29-23	492.9	4.54	4.04	4.20	.750	13.53	8.99	1.0310
680	2-12-23	1-30 to 3-5-23	383.9	4.54	4.33	4.61	.742	14.22	9.68	1.0339
707	1-28-24	1-8 to 2-11-24	506.5	4.54	4.50	4.83	.734	14.60	10.06	1.0353
652	12-27-21	12-13-21 to 1-16-22	351.7	4.55	3.86	4.27	.724	13.40	8.85	1.0313
659	1-2-22	12-13-21 to 1-16-22	867.3	4.56	3.52	5.02	.654	13.75	9.19	1.0341
725	6-16-24	5-27 to 6-30-24	753.4	4.56	3.64	5.11	.688	14.00	9.44	1.0333
720	5-10-22	4-23 to 5-6-22	439.2	4.56	3.70	5.19	.729	14.18	9.62	1.0321
688	2-8-22	1-24 to 2-27-22	690.9	4.56	3.84	4.78	.759	13.94	9.38	1.0349
666	8-21-22	8-8 to 9-11-22	191.3	4.56	4.97	4.40	.793	14.72	10.16	1.0343
702	8-6-23	7-24 to 8-20-23	119.2	4.56	4.16	4.43	.680	13.83	9.27	1.0309
653	11-15-21	11-1 to 12-5-21	529.7	4.56	4.50	4.18	.804	14.04	9.48	1.0346
737	11-10-24	10-21 to 11-24-24	884.9	4.57	3.19	5.05	.674	13.48	8.91	1.0322
728	5-19-24	4-29 to 6-2-24	731.0	4.57	3.63	5.12	.716	14.04	9.33	1.0334
711	9-25-22	9-12 to 10-16-22	682.1	4.57	3.74	4.88	.708	13.90	9.47	1.0315
711	12-11-22	11-21 to 12-25-22	588.5	4.57	4.02	4.17	.702	13.46	8.89	1.0304
715	5-22-22	5-15 to 6-12-22	605.6	4.57	4.10	5.00	.776	14.45	9.88	1.0355
714	1-15-23	1-2 to 2-5-23	648.1	4.57	4.25	4.56	.784	14.16	9.59	1.0342
734	6-16-24	5-27 to 6-30-24	912.5	4.58	3.36	5.15	.732	13.82	9.24	1.0326
755	3-10-24	2-14 to 3-31-24	1 067.0	4.58	3.40	5.13	.730	13.84	9.26	1.0327
716	11-26-23	11-13 to 12-17-23	885.4	4.58	3.65	4.76	.689	13.68	9.10	1.0332
736	3-3-24	2-19 to 3-24-24	855.4	4.58	3.68	5.07	.710	14.04	9.46	1.0337
670	9-11-22	8-29 to 10-2-22	922.0	4.58	3.71	4.97	.704	13.96	9.38	1.0326
730	9-17-23	9-4 to 10-1-23	499.4	4.58	3.88	4.87	.689	14.02	9.43	1.0341
648	10-6-24	9-16 to 10-20-24	460.0	4.58	3.97	4.06	.692	13.30	8.73	1.0309
649	10-30-22	10-16 to 11-3-22	393.4	4.58	4.10	4.73	.754	14.16	9.58	1.0342
705	9-25-22	10-24 to 11-16-22	623.4	4.58	4.34	4.80	.717	14.16	9.80	1.0338
712	1-2-22	1-24 to 1-23-22	535.5	4.58	4.34	4.99	.811	14.16	10.14	1.0361
739	11-19-23	11-6 to 12-10-23	1 230.5	4.59	3.20	5.11	.662	13.72	8.97	1.0321
714	12-11-22	11-28 to 12-1-23	724.0	4.59	4.20	4.65	.742	14.18	9.39	1.0334
716	8-20-23	7-31 to 9-3-23	807.6	4.59	4.86	3.28	.690	13.42	8.83	1.0305
705	7-21-24	7-1 to 8-4-24	1 063.2	4.59	3.62	5.15	.674	14.04	9.44	1.0338
716	9-17-23	9-4 to 10-8-23	654.2	4.60	3.79	4.81	.711	13.91	9.31	1.0322
724	7-2-23	6-19 to 7-23-23	679.6	4.60	3.88	5.24	.714	14.43	9.83	1.0343
631	12-24-23	12-6 to 12-31-23	140.7	4.60	3.90	5.87	.666	13.04	8.44	1.0299
647	11-27-25	11-3 to 12-7-25	499.5	4.60	4.16	5.08	.840	14.88	10.08	1.0362
664	3-7-22	2-28 to 3-27-22	944.4	4.60	4.70	4.88	.848	15.03	10.43	1.0356
688	2-26-23	2-13 to 3-19-23	1 186.9	4.61	3.49	5.04	.744	13.88	9.27	1.0337
652	1-30-22	1-17 to 2-20-22	276.8	4.61	3.94	4.13	.723	13.40	8.79	1.0318
651	9-10-23	8-25 to 9-28-23	486.0	4.61	3.94	4.48	.686	13.72	9.11	1.0319
728	2-4-24	1-22 to 2-25-24	561.5	4.62	3.42	5.04	.682	13.76	9.14	1.0320

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
720	12-20-21	12-6-21 to 1-0-22	544.1	4.62	3.50	4.66	.761	13.54	8.92	1.0327
730	11-19-23	11-6 to 12-10-23	1 053.8	4.62	3.50	4.79	.791	13.70	9.08	1.0329
650	1-2-22	12-13-21 to 1-23-22	911.0	4.62	3.82	4.66	.798	13.90	9.28	1.0330
650	12-6-21	11-22 to 12-21	463.4	4.62	3.86	4.58	.816	13.88	9.26	1.0336
673	2-19-23	1-30 to 3-5-23	980.3	4.62	3.88	4.83	.727	14.06	9.44	1.0350
742	2-1-26	1-12 to 2-15-26	924.0	4.63	3.39	5.22	.785	14.02	9.39	1.0329
740	11-27-25	11-3 to 12-7-25	554.3	4.63	4.00	4.97	.756	14.36	9.73	1.0370
737	1-12-25	12-23-24 to 1-26-25	747.8	4.64	3.45	4.94	.706	13.74	9.10	1.0324
728	3-10-24	2-26 to 3-31-24	790.6	4.64	3.60	4.91	.692	13.84	9.20	1.0316
725	9-29-24	9-9 to 10-13-24	309.8	4.64	3.62	4.65	.640	13.55	8.91	1.0309
725	10-15-23	10-2 to 10-15-23	377.7	4.64	3.64	5.13	.727	14.20	9.56	1.0337
630	4-17-22	4-4 to 5-8-22	930.7	4.64	5.08	4.43	.753	13.06	9.32	1.0365
738	12-13-26	11-23 to 12-27-26	342.8	4.65	3.46	5.16	.692	13.96	9.31	1.0326
724	12-4-22	11-20 to 12-25-22	390.5	4.65	4.05	4.11	.728	13.54	8.89	1.0301
702	4-23-23	4-10 to 5-14-23	273.4	4.65	4.07	3.97	.745	13.43	8.78	1.0332
661	1-30-22	1-17 to 2-20-22	1 158.5	4.66	3.32	5.40	.728	14.11	9.45	1.0332
670	3-21-22	3-7 to 4-10-22	874.5	4.66	3.66	5.00	.715	14.04	9.38	1.0345
726	1-28-24	1-15 to 2-18-24	924.5	4.66	3.73	5.16	.708	14.26	9.60	1.0354
725	1-28-24	1-15 to 2-18-24	879.4	4.66	3.94	4.76	.760	14.12	9.46	1.0339
730	11-3-24	10-21 to 11-17-24	839.3	4.66	3.99	4.17	.736	13.56	8.90	1.0325
702	3-19-23	3-6 to 4-9-23	448.1	4.66	4.06	4.29	.732	13.74	9.08	1.0316
711	2-19-23	1-30 to 3-5-23	461.4	4.66	4.10	4.14	.806	13.71	9.05	1.0350
673	1-30-22	1-30 to 2-13-22	640.4	4.66	4.12	4.55	.708	14.04	9.38	1.0336
651	11-19-23	11-1 to 12-5-23	281.3	4.66	4.18	4.35	.792	13.98	9.32	1.0311
650	3-14-22	2-28 to 4-3-22	626.6	4.66	4.22	4.56	.800	14.24	9.58	1.0329
653	12-20-21	12-6-21 to 1-9-22	455.7	4.66	4.28	4.73	.734	14.40	9.74	1.0340
724	4-7-24	3-25 to 4-28-24	621.7	4.66	4.64	4.10	.721	14.12	9.46	1.0324
665	12-18-22	11-28-22 to 1-23	634.2	4.67	3.60	4.76	.672	13.70	9.03	1.0356
724	11-3-24	10-14 to 11-17-24	815.6	4.67	3.64	5.20	.702	14.31	9.64	1.0336
725	3-3-24	2-19 to 3-24-24	847.2	4.67	3.94	4.99	.716	14.32	9.65	1.0330
673	6-4-23	5-15 to 6-18-23	893.2	4.67	4.46	4.96	.771	14.86	10.19	1.0359
654	8-7-22	8-7 to 8-24-22	929.0	4.68	3.27	5.27	.705	13.92	9.24	1.0323
654	7-3-22	6-26 to 7-30-23	899.2	4.68	3.49	4.99	.676	13.84	9.16	1.0314
720	7-9-23	11-6 to 12-10-23	777.5	4.68	3.52	5.02	.698	14.16	9.48	1.0344
725	11-19-23	7-11 to 8-14-22	494.5	4.68	3.80	4.97	.751	13.98	9.30	1.0316
716	7-24-22	5-22 to 6-25-23	519.4	4.68	3.84	4.70	.736	14.24	9.56	1.0337
654	10-30-22	10-23 to 11-16-22	877.9	4.68	3.94	4.60	.736	13.96	9.28	1.0325
705	1-23-22	1-23 to 2-6-22	596.2	4.68	4.23	4.84	.798	14.55	9.87	1.0362
680	3-19-23	3-6 to 4-9-23	323.8	4.69	4.22	4.43	.722	14.06	9.37	1.0317
713	3-26-23	3-13 to 4-16-23	761.5	4.70	3.64	5.04	.722	14.10	9.40	1.0339
742	8-30-26	8-10 to 9-13-26	443.3	4.70	3.76	5.14	.736	14.34	9.64	1.0294

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				percl.	percl.	percl.	percl.	percl.	percl.	
715	2-8-22	1-24 to 2-27-22	376.1	4.70	3.89	5.09	.717	14.40	9.70	1.0338
650	5-22-22	5-9 to 6-12-22	659.6	4.70	4.14	4.67	.752	14.26	9.56	1.0336
714	1-30-22	1-17 to 2-20-22	601.5	4.70	4.62	4.65	.860	14.83	10.13	1.0373
688	11-26-23	11-13 to 12-17-23	402.0	4.71	3.90	4.96	.727	14.30	9.59	1.0338
714	12-27-21	12-13-21 to 1-16-22	576.2	4.71	4.00	5.09	.818	14.62	9.91	1.0356
739	10-19-25	9-29 to 11-2-25	341.6	4.71	4.05	5.33	.783	14.87	10.16	1.0366
655	6-12-23	5-22 to 6-25-23	449.5	4.71	4.30	4.71	.780	14.50	9.79	1.0342
663	1-28-24	1-22 to 2-25-24	371.8	4.71	4.44	4.44	.776	14.44	9.73	1.0347
726	6-16-24	5-27 to 6-30-24	742.3	4.72	3.80	5.25	.716	14.49	9.77	1.0334
728	10-23-23	10-16 to 11-12-23	775.9	4.72	3.88	5.05	.729	14.38	9.66	1.0347
690	9-2-24	8-12 to 9-15-24	317.7	4.72	3.92	5.05	.706	14.40	9.68	1.0337
802	11-10-24	10-21 to 11-24-24	630.8	4.72	4.01	4.54	.734	14.00	9.28	1.0337
803	11-23-25	11-3 to 12-7-25	632.3	4.72	4.12	4.73	.681	14.25	9.53	1.0324
742	12-28-25	12-8-25 to 1-11-26	1 014.5	4.73	3.17	5.30	.782	13.98	9.25	1.0347
688	3-14-22	2-28 to 4-3-22	662.2	4.73	3.92	5.65	.760	15.06	10.33	1.0324
728	12-31-23	12-18-23 to 1-21-24	838.7	4.74	3.38	4.94	.698	13.76	9.02	1.0325
716	10-23-23	10-9 to 11-12-23	558.9	4.74	3.66	5.21	.699	13.72	8.98	1.0325
688	4-2-23	3-20 to 4-23-23	1 078.5	4.74	3.72	5.15	.773	14.38	9.64	1.0341
726	5-1-24	4-29 to 5-26-24	687.1	4.74	3.72	5.15	.708	14.22	9.48	1.0337
688	4-17-22	4-4 to 5-8-22	685.3	4.74	3.98	5.37	.733	14.83	10.09	1.0339
661	11-22-21	11-8 to 12-12-21	430.4	4.74	4.04	4.37	.776	13.93	9.19	1.0333
715	11-13-22	10-31 to 12-22	484.2	4.74	4.18	4.74	.696	14.36	9.62	1.0338
714	3-26-23	3-13 to 4-16-23	578.1	4.74	4.26	4.71	.774	14.48	9.74	1.0335
734	5-12-24	4-29 to 5-26-24	783.6	4.74	3.32	5.19	.720	13.99	9.23	1.0323
742	3-8-26	2-16 to 3-22-26	852.3	4.76	3.53	5.25	.780	14.32	9.56	1.0343
654	12-4-22	11-17 to 12-21-22	146.8	4.76	4.07	4.62	.734	14.18	9.42	1.0337
659	11-13-22	10-24 to 11-27-22	665.1	4.76	4.08	4.84	.660	14.34	9.58	1.0337
702	1-8-23	12-26-22 to 1-29-23	581.4	4.76	4.12	4.30	.756	13.94	9.18	1.0325
680	12-6-21	11-22 to 12-26-21	806.7	4.76	4.14	4.54	.756	14.20	9.44	1.0348
714	6-4-23	5-22 to 6-25-23	239.3	4.76	4.22	4.77	.792	14.54	9.78	1.0340
649	1-8-23	12-19-22 to 1-22-23	472.0	4.76	4.45	4.61	.778	14.60	9.84	1.0357
804	8-30-26	8-10 to 9-6-26	156.8	4.76	6.25	4.56	.918	16.49	11.73	1.0362
725	10-23-23	10-16 to 11-5-23	623.7	4.77	3.50	5.15	.703	14.12	9.35	1.0339
715	1-2-22	12-20-21 to 1-23-22	407.0	4.77	3.58	5.27	.718	14.34	9.57	1.0334
803	1-12-25	12-23-24 to 1-26-25	187.5	4.78	2.89	5.07	.638	13.38	8.60	1.0311
654	10-16-22	10-1 to 10-23-22	819.5	4.78	3.78	4.77	.734	14.06	9.28	1.0332
673	12-24-23	12-4 to 23 to 1-7-24	413.9	4.78	3.94	4.77	.688	14.18	9.40	1.0333
705	8-26-24	8-5 to 9-8-24	801.4	4.78	4.10	4.99	.694	14.56	9.78	1.0331
659	3-14-22	2-28 to 4-3-22	940.6	4.79	3.54	5.45	.698	14.48	9.69	1.0336
652	11-22-21	11-8 to 12-12-21	478.4	4.79	3.98	4.32	.767	13.86	9.07	1.0333
732	8-26-24	8-5 to 9-8-24	382.0	4.79	4.42	4.77	.724	14.70	9.91	1.0332

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat per cent.	Protein per cent.	Lactose per cent.	Ash per cent.	Total solids per cent.	Solids-not-fat per cent.	Specific gravity
724	1-12-25	12-23-24 to 1-26-25	634.0	4.80	3.76	4.82	.698	14.08	9.28	1.0320
688	9-17-23	9-4 to 10-8-23	740.9	4.80	4.01	4.93	.726	14.47	9.67	1.0342
667	10-2-22	9-19 to 10-23-22	886.8	4.80	4.41	4.69	.736	14.64	9.84	1.0345
805	5-17-26	4-27 to 5-31-26	317.7	4.80	4.64	5.69	.792	15.92	11.12	1.0338
688	1-23-23	1-9 to 2-12-23	373.2	4.82	3.30	5.22	.724	14.06	9.24	1.0330
670	12-20-21	12-5 to 12-21 to 1-2-22	711.7	4.82	3.56	4.59	.772	13.74	8.92	1.0354
734	8-26-24	8-5 to 9-8-24	778.5	4.82	3.61	4.90	.730	14.06	9.24	1.0328
733	3-26-23	3-6 to 4-9-23	974.3	4.82	3.93	4.80	.734	14.28	9.46	1.0337
741	4-12-26	3-23 to 4-26-26	748.1	4.83	3.28	5.41	.737	14.26	9.43	1.0335
716	8-28-22	8-15 to 9-18-22	503.0	4.83	3.80	4.97	.700	14.30	9.47	1.0323
714	4-30-23	4-17 to 5-21-23	454.7	4.83	3.98	4.85	.769	14.43	9.60	1.0341
714	4-11-22	4-4 to 5-1-22	758.8	4.83	4.42	5.04	.832	15.12	10.29	1.0346
737	12-8-24	11-25 to 12-22-24	682.2	4.84	3.33	4.96	.707	13.84	9.00	1.0333
661	3-19-23	2-27 to 4-2-23	1 290.3	4.84	3.58	4.97	.673	14.06	9.22	1.0332
725	4-7-24	3-23 to 4-28-24	833.9	4.84	3.70	5.06	.695	14.30	9.46	1.0339
654	8-6-23	7-17 to 8-20-23	802.2	4.84	3.76	4.84	.650	13.84	9.00	1.0307
651	10-15-23	9-29 to 10-31-23	343.5	4.84	4.06	4.47	.706	14.08	9.24	1.0325
742	11-27-25	11-3 to 12-7-25	648.7	4.85	3.14	5.29	.776	14.06	9.21	1.0344
803	10-19-25	9-29 to 11-2-25	1 009.4	4.85	3.86	4.93	.696	14.34	9.49	1.0344
688	2-4-24	1-22 to 2-25-24	518.9	4.85	4.08	4.86	.741	14.53	9.68	1.0337
667	8-13-23	7-24 to 8-27-23	499.5	4.85	4.09	4.69	.686	14.32	9.47	1.0319
659	11-20-21	11-15 to 12-12-21	666.1	4.86	3.50	4.82	.618	13.80	8.94	1.0342
709	1-10-22	1-3 to 1-23-22	513.3	4.86	3.74	5.04	.725	14.36	9.50	1.0344
714	11-6-22	10-24 to 11-27-22	734.8	4.86	4.04	4.78	.744	14.42	9.56	1.0337
702	2-12-23	1-30 to 3-5-23	505.1	4.86	4.14	4.25	.762	14.01	9.15	1.0335
657	9-25-22	9-5 to 10-16-22	642.0	4.86	4.28	4.90	.700	14.78	9.92	1.0344
651	6-19-22	6-2 to 7-10-22	669.4	4.88	3.48	4.94	.700	14.00	9.12	1.0345
741	5-17-26	5-3 to 5-31-26	591.5	4.88	3.71	5.35	.778	14.72	9.84	1.0313
724	8-26-24	8-5 to 9-8-24	766.4	4.88	3.82	5.00	.724	14.42	9.54	1.0328
711	6-4-22	5-13 to 6-18-23	236.1	4.88	4.02	3.85	.723	13.47	8.59	1.0290
711	11-15-21	11-1 to 11-28-21	303.4	4.88	4.37	4.54	.800	14.65	9.77	1.0355
670	10-30-22	10-24 to 11-13-22	497.4	4.88	4.42	4.81	.746	14.86	9.98	1.0342
663	12-18-22	12-3 to 12-25-22	237.4	4.88	4.82	3.86	.782	14.84	9.96	1.0344
673	1-28-24	1-8 to 1-28-24	88.5	4.88	5.70	3.85	.854	15.28	10.40	1.0364
727	12-31-23	12-1 to 12-23 to 1-14-24	426.7	4.89	3.80	5.10	.709	14.50	9.61	1.0340
720	11-26-23	11-6 to 12-10-23	430.4	4.90	4.12	4.65	.710	14.38	9.48	1.0322
667	7-21-24	7-1 to 8-4-24	438.5	4.90	4.15	4.66	.728	14.44	9.54	1.0328
688	9-4-22	8-22 to 9-25-22	521.7	4.90	4.22	5.15	.766	15.04	10.14	1.0335
649	2-12-23	1-23 to 2-26-23	520.9	4.90	4.42	4.68	.776	14.79	9.89	1.0366
713	7-21-24	7-1 to 8-4-24	363.1	4.92	3.80	4.51	.696	13.93	9.01	1.0309

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat per cent.	Protein per cent.	Lactose per cent.	Ash per cent.	Total solids per cent.	Solids-not-fat per cent.	Specific gravity
716	2-4-24	1-22 to 2-25-24	430.3	4.92	3.98	4.50	.698	14.10	9.18	1.0317
688	12-31-23	12-18-23 to 1-21-24	553.1	4.92	4.08	4.87	.724	14.39	9.67	1.0346
688	11-29-21	11-15 to 12-19-21	683.1	4.92	4.09	4.60	.759	14.37	9.45	1.0346
659	12-18-22	11-28-22 to 1-1-23	498.9	4.92	4.24	4.63	.686	14.48	9.56	1.0342
707	3-3-24	2-12 to 3-17-24	411.2	4.92	4.50	4.93	.708	15.06	10.14	1.0347
667	11-6-22	10-24 to 11-27-22	742.4	4.93	4.74	4.46	.730	14.85	9.93	1.0346
736	11-3-24	10-14 to 11-17-24	424.7	4.93	3.96	4.63	.709	14.23	9.30	1.0327
705	6-16-24	5-27 to 6-30-24	1 339.9	4.94	3.84	5.13	.672	14.65	9.71	1.0332
803	4-12-26	3-23 to 4-26-26	494.6	4.94	3.80	5.13	.613	14.48	9.54	1.0335
716	12-31-23	12-18-23 to 1-21-24	456.1	4.94	3.96	4.60	.703	14.20	9.26	1.0326
673	9-10-23	8-28 to 9-24-23	528.8	4.94	4.14	4.76	.719	14.56	9.62	1.0334
649	4-23-23	4-3 to 5-7-23	451.5	4.94	4.24	4.80	.743	14.72	9.78	1.0335
707	1-23-22	1-17 to 2-13-22	1 106.7	4.94	4.27	4.77	.786	14.77	9.83	1.0377
654	6-19-22	6-4 to 6-26-22	254.9	4.94	4.63	4.70	.770	15.04	10.10	1.0330
738	12-28-25	12-8-25 to 1-11-26	270.3	4.94	5.08	4.96	.902	15.88	10.94	1.0332
726	4-7-24	3-25 to 4-28-24	838.6	4.95	3.79	4.96	.721	14.42	9.47	1.0341
737	11-23-25	11-3 to 12-7-25	498.8	4.95	4.18	5.24	.728	15.10	10.15	1.0374
740	2-1-26	1-12 to 2-15-26	186.6	4.96	5.12	4.73	.842	15.64	10.69	1.0371
711	12-20-21	12-12-21 to 1-9-22	623.7	4.96	4.00	4.12	.799	13.88	8.92	1.0336
727	2-4-24	1-15 to 2-18-24	378.5	4.96	4.03	5.10	.734	14.82	9.86	1.0334
673	11-19-23	10-30 to 12-3-23	488.7	4.96	4.18	4.72	.714	14.57	9.61	1.0337
654	5-28-23	5-15 to 6-18-23	870.2	4.96	4.20	4.52	.740	14.42	9.46	1.0334
661	1-8-23	12-26-22 to 1-22-23	1 303.2	4.97	3.22	5.13	.692	14.01	9.04	1.0334
739	9-29-24	9-9 to 10-13-24	378.2	4.97	4.16	4.82	.697	14.65	9.68	1.0335
670	4-23-23	4-3 to 5-7-23	759.0	4.97	4.21	4.89	.742	14.81	9.84	1.0339
734	7-7-24	3-25 to 4-28-24	1 045.2	4.98	3.38	4.98	.742	14.08	9.10	1.0336
700	2-14-22	1-24 to 2-27-22	837.6	4.98	3.48	4.95	.712	14.12	9.14	1.0321
728	9-2-24	8-12 to 9-15-21	644.7	4.98	3.74	5.23	.711	14.66	9.68	1.0348
688	11-15-21	11-1 to 12-5-21	726.8	4.98	4.54	5.08	.800	14.39	9.41	1.0353
733	5-28-23	5-15 to 6-18-23	178.3	4.98	4.88	5.22	.798	15.38	10.90	1.0345
736	7-21-24	7-1 to 8-24-24	688.7	5.00	3.79	4.89	.708	14.48	9.48	1.0330
673	4-30-23	4-10 to 5-14-23	891.3	5.00	3.80	4.89	.698	14.42	9.42	1.0333
670	1-2-23	6-12 to 7-16-23	694.0	5.00	3.98	4.89	.726	14.54	9.54	1.0327
688	1-2-22	12-20-21 to 1-23-22	635.7	5.00	3.98	4.85	.714	14.42	9.42	1.0333
694	9-10-23	8-21 to 9-24-23	738.2	5.00	4.02	4.95	.790	14.76	9.76	1.0353
649	3-19-23	2-27 to 4-2-23	489.4	5.00	4.21	4.71	.690	14.61	9.61	1.0331
707	4-7-24	3-17 to 4-21-24	272.0	5.00	4.39	4.66	.752	14.80	9.80	1.0385
659	6-26-22	6-6 to 7-10-22	850.5	5.00	4.74	4.74	.712	15.24	10.24	1.0351
688	3-10-24	2-28 to 3-31-24	487.5	5.02	3.54	5.34	.677	14.58	9.56	1.0322
710	11-29-21	11-15 to 12-19-21	1 063.6	5.03	3.62	4.28	.771	14.69	9.67	1.0328

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat perct.	Protein perct.	Lactose perct.	Ash perct.	Total solids perct.	Solids-not-fat perct.	Specific gravity
667	6-16-24	5-27 to 6-30-24	468.6	5.03	4.24	4.92	.715	14.91	9.88	1.0331
742	4-12-26	3-23 to 4-26-26	865.0	5.04	3.14	5.49	.750	14.42	9.38	1.0333
734	7-21-24	7-1 to 8-4-24	814.6	5.04	3.58	4.81	.754	14.18	9.14	1.0320
716	0-19-22	0-6 to 7-10-22	493.5	5.04	3.85	4.98	.705	14.57	9.54	1.0336
673	1-23-22	1-23 to 2-13-22	943.8	5.04	3.98	4.74	.820	14.36	9.32	1.0334
667	12-11-22	11-21 to 12-22-22	1017.4	5.04	4.00	4.58	.736	14.36	9.80	1.0338
667	6-12-24	4-29 to 5-26-24	371.5	5.04	4.34	4.74	.722	14.84	10.40	1.0358
724	7-6-25	6-16 to 7-20-25	388.1	5.04	4.54	5.08	.776	15.44	10.00	1.0357
667	12-11-22	11-28-22 to 1-1-23	747.2	5.04	4.78	4.67	.753	15.04	10.00	1.0337
673	1-15-23	12-26-22 to 1-29-23	973.6	5.05	4.00	4.63	.732	14.42	9.37	1.0332
715	11-29-21	11-15 to 12-19-21	453.4	5.06	3.75	4.62	.732	14.16	9.10	1.0329
670	10-16-22	10-3 to 10-23-22	491.1	5.06	4.24	4.84	.741	14.88	9.82	1.0335
667	8-26-24	8-5 to 9-8-24	414.3	5.06	4.42	4.54	.730	14.75	9.69	1.0325
801	11-10-24	10-21 to 11-24-24	424.5	5.06	4.42	4.98	.733	15.19	10.13	1.0355
726	10-23-23	10-9 to 11-5-23	807.8	5.08	3.28	5.09	.719	14.17	9.09	1.0320
709	4-11-22	3-28 to 5-1-22	915.0	5.08	4.00	5.07	.732	14.88	9.80	1.0330
726	8-26-24	8-5 to 9-8-24	600.1	5.08	4.06	5.12	.745	15.00	9.92	1.0338
702	12-6-21	11-22 to 12-26-21	423.3	5.08	4.31	4.09	.802	14.28	9.20	1.0351
715	12-18-22	12-5-22 to 1-8-23	392.5	5.08	4.42	4.49	.720	14.71	9.63	1.0346
715	3-14-22	2-28 to 4-3-22	336.5	5.09	3.98	5.30	.732	15.10	10.01	1.0338
689	1-8-23	12-26-22 to 1-29-23	303.2	5.10	5.12	4.26	.785	15.25	10.16	1.0353
737	10-19-25	9-29 to 11-2-25	526.1	5.10	3.89	5.25	.750	14.99	9.89	1.0364
688	5-22-22	5-9 to 6-12-22	681.8	5.10	3.99	5.30	.745	15.13	10.03	1.0346
681	4-11-22	3-28 to 5-1-22	294.2	5.10	4.06	5.11	.722	14.99	9.89	1.0334
670	5-28-23	5-8 to 6-11-23	770.8	5.10	4.12	5.06	.744	15.02	9.92	1.0349
654	2-12-23	1-25 to 3-1-23	591.2	5.10	4.22	4.53	.740	14.59	9.49	1.0345
670	9-10-23	8-21 to 9-24-23	591.4	5.10	4.28	4.63	.746	14.76	9.66	1.0330
649	12-4-22	11-14 to 12-18-22	359.4	5.11	3.89	4.81	.770	14.98	9.37	1.0338
735	9-29-24	9-9 to 10-13-24	359.4	5.11	3.89	4.80	.685	14.48	9.37	1.0321
667	4-27-25	4-7 to 5-11-25	287.9	5.11	4.02	4.83	.704	14.66	9.55	1.0320
667	2-28-23	2-8 to 6-11-23	288.3	5.12	4.43	4.89	.780	15.22	10.10	1.0360
637	2-4-24	1-15 to 2-4-24	69.6	5.12	5.02	3.95	.775	14.87	9.75	1.0332
801	8-30-26	8-10 to 9-13-26	307.0	5.13	5.24	4.90	.886	16.16	11.03	1.0353
624	7-2-23	6-19 to 7-16-23	623.9	5.14	4.14	4.50	.714	14.49	9.35	1.0325
694	0-16-24	5-27 to 6-30-24	325.1	5.14	4.82	5.19	.793	15.94	10.80	1.0363
724	8-10-25	7-21 to 8-24-25	274.4	5.15	3.72	6.05	.803	15.72	10.57	1.0360
659	2-26-23	2-13 to 3-12-23	416.2	5.15	4.14	4.63	.705	14.62	9.47	1.0334
724	12-28-25	12-8-25 to 1-11-26	491.1	5.15	4.19	4.85	.768	15.00	9.85	1.0329
803	3-8-26	2-16 to 3-22-26	515.3	5.16	3.71	4.96	.672	14.50	9.34	1.0316

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				percl.	percl.	percl.	percl.	percl.	percl.	
709	3-21-22	2-28 to 3-27-22	672.8	5.16	3.79	5.35	.738	15.04	9.88	1.0328
659	1-23-23	1-2 to 12-23	624.5	5.16	4.06	4.69	.691	14.60	9.44	1.0330
716	11-13-22	10-24 to 11-27-22	326.1	5.16	4.35	4.47	.706	14.69	9.53	1.0331
702	1-10-22	12-27-21 to 1-30-22	224.0	5.16	4.38	4.52	.812	14.87	9.71	1.0333
720	3-26-23	3-13 to 4-16-23	221.8	5.17	3.32	5.30	.688	14.48	9.31	1.0333
709	12-6-21	11-29-21 to 1-2-22	840.9	5.18	3.95	4.47	.724	14.32	9.14	1.0341
716	12-27-21	12-13-21 to 1-10-22	311.9	5.18	4.46	4.85	.826	15.32	10.14	1.0339
667	4-30-23	4-14 to 5-14-23	597.3	5.18	4.47	4.81	.756	15.22	10.04	1.0360
667	3-26-23	3-13 to 4-13-23	638.6	5.18	4.54	4.71	.744	15.17	10.04	1.0347
667	2-19-23	2-6 to 3-12-23	712.1	5.18	4.69	4.65	.758	15.28	9.99	1.0346
670	2-16-25	1-27 to 3-2-25	337.5	5.19	4.18	4.74	.718	14.83	10.10	1.0364
670	8-6-23	7-17 to 8-20-23	673.8	5.20	3.58	4.78	.710	14.27	9.64	1.0338
661	3-7-22	2-21 to 3-27-22	276.1	5.20	3.98	4.48	.740	14.40	9.20	1.0307
716	10-2-22	9-19 to 10-23-22	455.1	5.20	4.10	4.87	.690	14.86	9.66	1.0311
716	1-23-23	1-2 to 2-3-23	312.7	5.20	4.20	4.38	.716	14.50	9.30	1.0323
716	7-16-23	6-26 to 7-30-23	537.8	5.22	4.08	4.59	.714	14.60	9.38	1.0328
713	7-0-23	6-26 to 7-30-23	290.1	5.22	4.44	4.98	.759	15.40	10.18	1.0345
723	7-28-24	7-8 to 8-11-24	212.3	5.22	5.00	2.95	.788	13.96	8.74	1.0343
724	5-12-24	4-29 to 5-26-24	373.4	5.22	5.04	4.85	.788	15.91	10.69	1.0276
705	11-3-24	10-14 to 11-17-24	221.6	5.22	5.04	4.72	.698	14.68	9.43	1.0365
667	1-15-23	1-2 to 2-5-23	677.3	5.25	4.20	4.53	.767	15.23	9.98	1.0326
659	4-22-22	5-2 to 6-5-22	989.0	5.26	3.68	5.55	.688	15.18	9.92	1.0332
716	4-14-24	4-1 to 4-28-24	278.8	5.26	4.24	4.63	.706	14.84	9.58	1.0325
715	1-23-23	1-9 to 2-12-23	346.9	5.26	4.20	4.63	.736	14.74	9.48	1.0342
673	10-15-23	9-25 to 10-29-23	519.1	5.26	4.33	4.56	.728	14.88	9.62	1.0339
667	6-4-23	5-15 to 6-18-23	639.2	5.26	4.36	4.90	.740	15.28	10.02	1.0338
667	12-24-23	12-11-23 to 1-14-24	371.2	5.26	4.58	4.57	.726	15.12	9.86	1.0339
738	11-8-26	10-19 to 11-22-26	318.3	5.26	5.20	4.70	.901	16.06	10.80	1.0360
688	10-23-23	10-9 to 11-22-23	653.4	5.27	3.74	4.29	.722	14.66	9.39	1.0330
680	1-8-23	12-26-22 to 1-29-23	416.6	5.27	4.70	4.29	.736	15.00	9.73	1.0332
723	12-27-21	12-19-21 to 1-2-22	407.6	5.28	3.47	5.05	.778	14.58	9.30	1.0341
716	3-10-24	2-26 to 3-31-24	414.1	5.28	3.47	4.77	.704	14.83	9.55	1.0319
654	8-19-23	3-2 to 4-2-23	858.8	5.28	4.08	4.77	.704	14.83	9.55	1.0319
667	7-9-23	6-19 to 7-23-23	544.5	5.28	4.20	4.48	.718	14.68	9.40	1.0336
738	10-7-26	9-14 to 10-18-26	280.5	5.28	4.37	4.70	.708	15.06	9.78	1.0340
688	10-9-22	9-26 to 10-30-22	444.9	5.28	4.39	4.88	.874	15.42	10.14	1.0364
707	12-11-22	11-14 to 12-11-22	295.9	5.28	4.48	5.36	.874	15.90	10.62	1.0347
659	9-4-22	8-15 to 9-18-22	694.9	5.29	5.03	3.80	.700	14.81	9.53	1.0316
720	11-6-22	10-17 to 11-20-22	298.8	5.29	3.94	4.98	.694	14.90	9.61	1.0330
725	8-26-24	8-5 to 9-8-24	429.5	5.30	3.79	4.78	.672	15.46	10.17	1.0345
								14.54	9.24	1.0320

TABLE 5.—COMPOSITION OF MILK FROM GUERNSEY-HOLSTEIN CROSSES (Continued)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
702	2-16-25	2-16 to 3-2-25	561.9	5.30	3.90	4.44	.796	14.44	9.14	1.0329
734	9-29-24	9-9 to 10-13-24	672.4	5.30	3.96	4.81	.754	14.82	9.52	1.0330
659	5-7-23	4-17 to 5-21-23	462.8	5.32	3.79	4.54	.687	14.34	9.02	1.0315
735	11-3-24	10-14 to 11-17-24	251.5	5.32	4.18	4.58	.676	14.76	9.44	1.0327
654	4-23-23	4-3 to 5-14-23	1 067.5	5.32	4.32	4.57	.726	14.94	9.62	1.0327
667	4-7-24	3-25 to 4-28-24	437.3	5.32	4.34	4.62	.722	15.00	9.68	1.0333
803	12-28-25	12-8-25 to 1-11-26	576.7	5.33	4.16	4.89	.656	15.04	9.71	1.0318
715	2-26-23	2-13 to 3-19-23	327.7	5.33	4.30	4.61	.720	14.96	9.63	1.0343
667	3-3-24	2-19 to 3-24-24	412.6	5.34	4.46	4.70	.740	15.24	9.90	1.0334
670	11-19-23	10-30 to 12-3-23	497.8	5.34	4.52	4.80	.744	15.40	10.06	1.0350
742	11-8-26	10-19 to 11-15-26	106.4	5.35	5.06	4.82	.902	16.13	10.78	1.0346
667	3-23-25	3-3 to 4-6-25	339.8	5.36	4.24	4.75	.695	15.05	9.69	1.0337
663	11-29-21	11-28 to 12-19-21	1 049.2	5.38	3.77	4.45	.758	14.36	8.98	1.0344
803	2-1-26	1-12 to 2-15-26	527.0	5.40	3.86	4.73	.628	14.62	9.22	1.0297
720	9-25-22	9-12 to 10-16-22	356.7	5.40	3.89	5.03	.744	15.06	9.66	1.0321
667	9-10-23	8-28 to 10-1-23	432.1	5.41	4.56	4.42	.722	15.21	9.80	1.0331
670	2-12-23	1-23 to 2-26-23	695.6	5.42	4.42	4.66	.778	15.28	9.86	1.0353
710	6-26-22	6-13 to 7-10-22	143.8	5.42	4.67	5.13	.812	16.03	10.61	1.0338
720	10-23-23	10-2 to 11-5-23	492.7	5.43	4.02	4.25	.701	14.40	8.97	1.0314
688	11-13-22	10-31 to 11-27-22	268.9	5.44	4.52	5.10	.783	15.82	10.38	1.0363
790	12-31-23	12-11 to 1-14-24	254.9	5.44	4.54	4.25	.749	14.98	9.54	1.0330
670	12-24-23	12-4-23 to 1-7-24	320.3	5.44	4.70	4.81	.813	15.78	10.32	1.0352
716	2-26-23	2-6 to 3-12-23	300.8	5.46	4.09	4.40	.715	14.67	9.21	1.0317
720	2-18-23	2-18 to 3-2-23	716.2	5.46	4.17	4.97	.762	15.36	9.91	1.0362
688	5-19-24	4-29 to 5-26-24	133.4	5.46	4.61	5.37	.810	16.30	10.84	1.0363
716	4-11-22	3-28 to 5-1-22	338.6	5.47	4.26	5.21	.812	16.26	10.79	1.0348
659	4-2-23	4-4 to 5-8-22	243.0	5.48	4.06	4.60	.684	14.82	9.34	1.0331
659	4-2-23	3-13 to 4-16-23	489.1	5.48	4.16	4.60	.742	14.98	9.50	1.0345
728	1-8-23	12-22-22 to 1-24-23	1 013.8	5.48	4.62	5.53	.862	16.49	11.01	1.0350
654	10-6-24	9-16 to 10-20-24	389.4	5.48	4.16	4.88	.821	16.70	11.22	1.0383
674	11-13-22	10-31 to 11-13-22	150.4	5.48	5.52	4.88	.821	15.48	9.99	1.0359
670	3-19-23	2-27 to 4-2-23	759.5	5.49	4.36	4.88	.751	15.71	10.21	1.0363
670	1-8-23	12-19-22 to 1-22-23	700.2	5.50	4.89	4.55	.774	15.71	10.21	1.0325
661	5-16-22	5-2 to 5-29-22	211.6	5.51	4.08	4.99	.715	15.30	9.79	1.0325
670	10-15-23	9-25 to 10-29-23	512.7	5.52	4.63	4.88	.756	15.79	10.27	1.0343
654	3-7-22	2-19 to 3-21-22	516.3	5.52	4.70	4.82	.768	15.80	10.28	1.0334
667	1-12-25	12-23-24 to 1-26-25	340.7	5.56	4.27	4.69	.732	15.25	9.69	1.0340
654	4-11-22	3-22 to 5-1-22	677.0	5.58	4.80	4.99	.770	16.14	10.56	1.0330
730	8-26-24	8-5 to 9-1-24	259.4	5.58	5.02	4.93	.853	16.38	10.80	1.0363
716	1-30-22	1-17 to 2-20-22	309.3	5.59	4.62	4.20	.812	15.22	9.63	1.0356

TABLE 5.—COMPOSITION OF MILK FROM GURNEY-HOLSTEIN CROSSES (Concluded)

Cow No.	Date	Time interval	Pounds of milk	Fat	Protein	Lactose	Ash	Total solids	Solids-not-fat	Specific gravity
				perct.	perct.	perct.	perct.	perct.	perct.	
726	9-29-24	9-9 to 10-13-24	406.4	5.60	4.20	4.92	.744	15.46	9.86	1.0336
667	11-19-23	11-6 to 12-10-23	338.1	5.60	4.60	4.92	.734	15.52	9.92	1.0333
670	12-4-22	11-14 to 12-18-22	745.3	5.60	4.66	4.72	.758	15.74	10.14	1.0355
714	3-7-22	2-21 to 3-20-22	169.4	5.61	5.46	3.53	.735	15.54	9.93	1.0372
667	12-8-24	11-18 to 12-22-24	338.4	5.62	4.35	4.61	.737	15.32	9.70	1.0392
663	2-19-23	2-5 to 3-12-23	1 537.5	5.63	3.82	4.73	.740	14.92	9.29	1.0335
803	12-8-24	11-14 to 12-22-24	1 339.0	5.66	3.10	5.06	.654	14.47	8.81	1.0303
667	1-28-24	1-15 to 2-18-24	400.2	5.66	4.50	4.71	.753	15.62	9.96	1.0346
734	11-3-24	10-14 to 11-17-24	604.5	5.70	3.96	4.73	.732	15.14	9.44	1.0331
716	11-3-24	10-14 to 11-17-24	347.2	5.70	4.30	4.39	.732	14.76	9.06	1.0334
667	12-27-21	12-13 to 1-10-22	443.1	5.70	4.57	4.59	.716	15.58	9.88	1.0336
654	11-19-23	11-7 to 12-3-23	149.7	5.72	4.35	4.51	.723	15.38	9.66	1.0324
667	1-30-22	1-17 to 2-13-22	154.8	5.72	5.51	4.10	.850	16.18	10.46	1.0363
742	10-7-26	9-14 to 10-18-26	322.3	5.74	4.27	5.17	.828	16.01	10.27	1.0365
716	4-2-23	3-13 to 4-16-23	282.2	5.78	4.23	4.49	.724	15.22	9.44	1.0320
688	12-18-22	12-18-22 to 1-8-23	906.2	5.78	4.23	4.79	.796	15.60	9.82	1.0334
667	11-22-21	11-8 to 12-12-21	467.5	5.80	4.89	3.99	.828	15.51	9.71	1.0346
716	5-19-24	4-29 to 5-26-24	141.5	5.82	6.10	4.11	.854	14.83	8.99	1.0354
715	4-2-23	3-20 to 4-23-23	185.5	5.84	4.77	3.47	.752	14.83	8.99	1.0313
659	7-31-22	7-11 to 8-14-22	689.7	5.86	4.05	5.05	.716	15.68	9.82	1.0322
667	9-29-24	9-9 to 10-13-24	319.9	5.86	4.67	4.53	.703	15.76	9.90	1.0325
654	5-16-22	5-2 to 6-3-22	492.2	5.86	4.76	4.97	.752	16.34	10.48	1.0337
654	10-15-23	9-25 to 11-6-23	602.5	5.88	3.96	4.43	.726	15.00	9.12	1.0312
667	10-15-23	10-2 to 11-5-23	334.0	5.89	4.48	4.45	.726	15.75	9.86	1.0330
716	3-7-22	2-21 to 3-27-22	301.2	5.90	4.48	4.76	.706	15.65	9.75	1.0335
716	6-12-23	5-22 to 6-25-23	112.9	5.94	5.50	4.47	.767	16.68	10.74	1.0347
726	12-18-22	11-28-22 to 1-1-23	319.9	5.96	4.22	4.27	.694	15.14	9.18	1.0347
705	11-3-24	10-14 to 11-17-24	235.4	6.10	4.59	4.56	.754	16.00	9.90	1.0347
705	9-29-24	9-9 to 10-13-24	352.8	6.24	5.08	4.72	.797	16.74	10.60	1.0349
716	5-7-23	4-17 to 5-21-23	230.0	6.10	4.64	4.43	.749	16.02	9.82	1.0325
654	12-27-21	12-15-21 to 1-16-22	522.9	6.22	5.20	4.61	.798	16.83	10.61	1.0345
734	3-3-24	2-12 to 3-24-24	226.2	6.36	3.42	4.99	.744	15.51	9.15	1.0313
732	9-29-24	9-9 to 10-13-24	167.5	6.38	3.36	4.60	.784	17.12	10.74	1.0352
707	2-12-23	1-30 to 3-5-23	640.3	6.40	3.94	4.89	.711	15.94	9.54	1.0324
710	10-9-22	10-2 to 10-23-22	675.7	6.42	4.14	4.77	.812	16.14	9.72	1.0321
737	12-28-25	12-8-25 to 1-11-26	295.7	6.45	5.16	5.55	.936	17.06	11.45	1.0372
716	5-16-22	5-2 to 6-5-22	369.0	6.48	4.40	5.4	.789	16.82	10.34	1.0341
654	11-29-21	11-15 to 12-14-21	482.8	6.52	5.60	4.17	.790	16.48	9.96	1.0341
690	10-6-24	9-16 to 10-11-24	101.0	6.56	5.28	4.16	.740	16.74	10.18	1.0319
654	1-30-22	1-17 to 2-18-22	441.8	7.50	5.54	4.04	.814	17.89	10.39	1.0348

TABLE 6.—COMPOSITION OF MILK OF VARIOUS DAIRY BREEDS: SUMMARY OF DATA IN TABLES 1 TO 5

Number of samples	Limits of fat percentages	Weights of milk	MEANS OF ANALYSES OF AYRSHIRE MILK					
			Means of percentages of components					
			Fat	Protein	Lactose	Ash	T. S.	S-N-F
6	2.75-3.24	6084.5	3.0633	3.1117	4.5433	.6775	11.3950	8.3317
40	3.25-3.74	33045.9	3.5285	3.3342	4.5362	.6646	12.1840	8.6555
75	3.75-4.24	53932.7	3.9965	3.5397	4.5867	.6796	12.9031	8.9065
63	4.25-4.74	33696.1	4.4630	3.6843	4.7028	.6860	13.5363	9.0733
15	4.75-5.24	6470.1	4.9267	3.8393	4.6933	.7081	14.1673	9.2407
9	5.25-5.74	3648.5	5.4111	4.0756	4.9944	.7248	15.2056	9.7944
208	.....	138897.8	4.1492	3.5764	4.6954	.6826	13.1039	8.9547
Mean percentages of components based on milk yields								
6	2.75-3.24	6084.5	3.0464	3.1345	4.7302	.6710	11.5811	8.5346
40	3.25-3.74	33045.9	3.5136	3.3334	4.5829	.6631	12.3931	8.8795
75	3.75-4.24	53932.7	3.9933	3.5034	4.7336	.6811	12.9340	8.9390
63	4.25-4.74	33696.1	4.4593	3.6379	4.8084	.6837	13.5898	9.1304
15	4.75-5.24	6470.1	4.9372	3.8142	4.8529	.7097	14.3137	9.3770
9	5.25-5.74	3648.5	5.4036	4.0107	5.1270	.7267	15.2685	9.8649
208	.....	138897.8	4.0318	3.5080	4.8110	.6795	13.0307	8.9989
Mean percentages of components based on milk yields								
6	2.75-3.24	6084.5	3.0464	3.1345	4.7302	.6710	11.5811	8.5346
40	3.25-3.74	33045.9	3.5136	3.3334	4.5829	.6631	12.3931	8.8795
75	3.75-4.24	53932.7	3.9933	3.5034	4.7336	.6811	12.9340	8.9390
63	4.25-4.74	33696.1	4.4593	3.6379	4.8084	.6837	13.5898	9.1304
15	4.75-5.24	6470.1	4.9372	3.8142	4.8529	.7097	14.3137	9.3770
9	5.25-5.74	3648.5	5.4036	4.0107	5.1270	.7267	15.2685	9.8649
208	.....	138897.8	4.0318	3.5080	4.8110	.6795	13.0307	8.9989
MEANS OF ANALYSES OF GUERNSEY MILK								
			Means of percentages of components					
			Means of percentages of components					
			Fat	Protein	Lactose	Ash	T. S.	S-N-F
24	3.65-4.24	23571.2	4.0088	3.4988	4.8938	.7120	13.1121	9.1033
71	4.25-4.74	55412.8	4.5470	3.6977	4.9373	.7187	13.9007	9.3537
98	4.75-5.24	63706.5	5.0192	3.9550	4.9571	.7371	14.6683	9.6491
59	5.25-5.74	34744.6	5.4814	4.1414	4.9293	.7537	15.3034	9.8220
28	5.75-6.24	20571.7	5.9392	4.3750	4.8700	.7622	16.0076	10.0344
23	6.25-6.74	9098.8	6.4217	4.5743	4.7417	.7844	16.5217	10.1000
5	6.75-7.24	1519.9	6.8940	4.9420	4.8180	.8168	17.4720	10.3396
3	7.25-7.74	1024.2	7.5567	4.7600	4.6800	.8133	17.8267	10.3387
321	.....	211649.7	5.1865	4.0152	4.9126	.7425	14.8562	9.6698
Mean percentages of components based on milk yields								
24	3.65-4.24	23571.2	4.0168	3.4367	4.9873	.7074	13.1466	9.1297
71	4.25-4.74	55412.8	4.5481	3.6158	5.0108	.7145	13.8889	9.3409
98	4.75-5.24	63706.5	5.0185	3.9180	4.9945	.7386	14.6696	9.6510
59	5.25-5.74	34744.6	5.4896	4.1481	4.9479	.7559	15.3404	9.8509
28	5.75-6.24	20571.7	5.9220	4.2965	4.8893	.7589	15.8675	9.9433
23	6.25-6.74	9098.8	6.4157	4.5009	4.7715	.7866	16.4744	10.0586
5	6.75-7.24	1519.9	6.9011	4.7536	4.8687	.8185	17.3413	10.4415
3	7.25-7.74	1024.2	7.5503	4.7803	4.6837	.8172	17.8325	10.2812
321	.....	211649.7	5.0348	3.8951	4.9681	.7367	14.6342	9.5994
Mean percentages of components based on milk yields								
24	3.65-4.24	23571.2	4.0168	3.4367	4.9873	.7074	13.1466	9.1297
71	4.25-4.74	55412.8	4.5481	3.6158	5.0108	.7145	13.8889	9.3409
98	4.75-5.24	63706.5	5.0185	3.9180	4.9945	.7386	14.6696	9.6510
59	5.25-5.74	34744.6	5.4896	4.1481	4.9479	.7559	15.3404	9.8509
28	5.75-6.24	20571.7	5.9220	4.2965	4.8893	.7589	15.8675	9.9433
23	6.25-6.74	9098.8	6.4157	4.5009	4.7715	.7866	16.4744	10.0586
5	6.75-7.24	1519.9	6.9011	4.7536	4.8687	.8185	17.3413	10.4415
3	7.25-7.74	1024.2	7.5503	4.7803	4.6837	.8172	17.8325	10.2812
321	.....	211649.7	5.0348	3.8951	4.9681	.7367	14.6342	9.5994

TABLE 6.—(Continued)

MEANS OF ANALYSES OF HOLSTEIN MILK									
Number of samples	Limits of fat percentages	Weights of milk	Means of percentages of components						
			Fat	Protein	Lactose	Ash	T.S.	S-N-F	Sp.g.
85	2.60-3.24	140139.1	3.0207	3.1029	4.8976	.6666	11.6881	8.6674	1.03179
108	3.25-3.74	134361.6	3.4804	3.3539	4.8602	.6781	12.3722	8.8919	1.03232
46	3.75-4.24	46185.6	3.9291	3.5837	4.8607	.6847	13.0578	9.1287	1.03269
20	4.25-4.74	12514.7	4.4470	4.0635	4.7885	.7084	14.0075	9.5605	1.03325
8	5.14-5.74	3706.3	5.3438	4.9538	4.7088	.7799	15.7850	10.4312	1.03500
1	5.75-6.24	378.6	6.0000	4.8800	4.6600	.7940	16.3300	10.3300	1.03670
268	.....	337285.9	3.5488	3.4201	4.8615	.6813	12.5116	8.9628	1.03238
Mean percentages of components based on milk yields									
85	2.60-3.24	140139.1	3.0214	3.0919	4.8808	.6671	11.6615	8.6401	1.03177
108	3.25-3.74	134361.6	3.4718	3.3384	4.8973	.6777	12.3556	8.9131	1.03250
46	3.75-4.24	46185.6	3.9236	3.5212	4.9043	.6811	13.0299	9.1063	1.03272
20	4.25-4.74	12514.7	4.4346	3.9749	4.8657	.6997	13.9754	9.5409	1.03352
8	5.14-5.74	3706.3	5.2829	4.4565	4.6685	.7398	15.1464	9.8635	1.03346
1	5.75-6.24	378.6	6.0000	4.8800	4.6600	.7940	16.3300	10.3300	1.03670
268	.....	337285.9	3.4050	3.2987	4.8875	.6754	12.2667	8.8615	1.03238
MEANS OF ANALYSES OF JERSEY MILK									
			Means of percentages of components						
4	3.25-3.74	2199.7	3.5675	3.5258	3.9275	.7230	11.8000	8.2325	1.02778
16	3.75-4.24	11572.7	3.9938	3.4894	4.8394	.6829	13.0056	9.0119	1.03178
41	4.25-4.74	36966.7	4.5073	3.6376	5.1015	.6880	13.9349	9.4276	1.03338
47	4.75-5.24	32008.1	5.0032	3.7751	4.9857	.6897	14.4534	9.4502	1.03307
45	5.25-5.74	29179.9	5.4436	3.9511	5.0000	.7121	15.1073	9.6638	1.03376
31	5.75-6.24	15801.7	5.9558	4.2374	4.8829	.7293	15.8258	9.8700	1.03375
9	6.25-6.74	3704.7	6.5100	3.9722	4.9644	.7082	16.1544	9.6444	1.03223
2	6.75-7.24	652.0	7.9900	4.2300	4.9500	.7300	16.7000	9.9100	1.03180
2	7.25-7.74	1240.0	7.4650	4.0700	4.6050	.6780	16.8200	9.3550	1.03275
0	7.75-8.24	.....	8.3650	4.9250	3.6050	.7715	17.6700	9.3050	1.03460
2	8.25-8.74	718.8	5.1836	3.8629	4.9447	.7027	14.6941	9.5105	1.03315
199	.....	134044.3	3.5669	3.7437	4.1101	.7142	12.1353	8.5684	1.03014
4	3.25-3.74	2199.7	3.5669	3.7437	4.1101	.7142	12.1353	8.5684	1.03014
16	3.75-4.24	11572.7	4.0177	3.3737	4.9695	.6718	13.0330	9.0065	1.03202
41	4.25-4.74	36966.7	4.4997	3.6084	5.0955	.6880	13.8924	9.3926	1.03348
47	4.75-5.24	32008.1	4.9989	3.7300	5.0137	.6878	14.4296	9.4306	1.03316
45	5.25-5.74	29179.9	5.4295	3.9288	5.0425	.7143	15.1155	9.6861	1.03392
31	5.75-6.24	15801.7	5.9390	4.2989	4.9004	.7383	15.8766	9.9375	1.03438
9	6.25-6.74	3704.7	6.4591	3.8929	4.9772	.7059	16.0331	9.5743	1.03230
2	6.75-7.24	652.0	7.9914	4.2761	4.9525	.7239	16.7439	9.9225	1.03184
2	7.25-7.74	1240.0	7.5613	3.4242	5.0242	.6992	16.7121	9.1516	1.03171
0	7.75-8.24	.....	8.3639	4.6244	3.8954	.7860	17.6739	9.3100	1.03572
2	8.25-8.74	718.8	5.0484	3.7854	5.0033	.6999	14.5372	9.4380	1.03333
199	.....	134044.3	3.5675	3.5258	3.9275	.7230	11.8000	8.2325	1.02778
4	3.25-3.74	2199.7	3.5675	3.5258	3.9275	.7230	11.8000	8.2325	1.02778
16	3.75-4.24	11572.7	3.9938	3.4894	4.8394	.6829	13.0056	9.0119	1.03178
41	4.25-4.74	36966.7	4.5073	3.6376	5.1015	.6880	13.9349	9.4276	1.03338
47	4.75-5.24	32008.1	5.0032	3.7751	4.9857	.6897	14.4534	9.4502	1.03307
45	5.25-5.74	29179.9	5.4436	3.9511	5.0000	.7121	15.1073	9.6638	1.03376
31	5.75-6.24	15801.7	5.9558	4.2374	4.8829	.7293	15.8258	9.8700	1.03375
9	6.25-6.74	3704.7	6.5100	3.9722	4.9644	.7082	16.1544	9.6444	1.03223
2	6.75-7.24	652.0	7.9900	4.2300	4.9500	.7300	16.7000	9.9100	1.03180
2	7.25-7.74	1240.0	7.4650	4.0700	4.6050	.6780	16.8200	9.3550	1.03275
0	7.75-8.24	.....	8.3650	4.9250	3.6050	.7715	17.6700	9.3050	1.03460
2	8.25-8.74	718.8	5.1836	3.8629	4.9447	.7027	14.6941	9.5105	1.03315
199	.....	134044.3	3.5669	3.7437	4.1101	.7142	12.1353	8.5684	1.03014
4	3.25-3.74	2199.7	3.5669	3.7437	4.1101	.7142	12.1353	8.5684	1.03014
16	3.75-4.24	11572.7	4.0177	3.3737	4.9695	.6718	13.0330	9.0065	1.03202
41	4.25-4.74	36966.7	4.4997	3.6084	5.0955	.6880	13.8924	9.3926	1.03348
47	4.75-5.24	32008.1	4.9989	3.7300	5.0137	.6878	14.4296	9.4306	1.03316
45	5.25-5.74	29179.9	5.4295	3.9288	5.0425	.7143	15.1155	9.6861	1.03392
31	5.75-6.24	15801.7	5.9390	4.2989	4.9004	.7383	15.8766	9.9375	1.03438
9	6.25-6.74	3704.7	6.4591	3.8929	4.9772	.7059	16.0331	9.5743	1.03230
2	6.75-7.24	652.0	7.9914	4.2761	4.9525	.7239	16.7439	9.9225	1.03184
2	7.25-7.74	1240.0	7.5613	3.4242	5.0242	.6992	16.7121	9.1516	1.03171
0	7.75-8.24	.....	8.3639	4.6244	3.8954	.7860	17.6739	9.3100	1.03572
2	8.25-8.74	718.8	5.0484	3.7854	5.0033	.6999	14.5372	9.4380	1.03333
199	.....	134044.3	3.5675	3.5258	3.9275	.7230	11.8000	8.2325	1.02778

TABLE 6.—(Continued)

MEANS OF ANALYSES OF MILK FROM GUERNSEY-HOLSTEIN CROSSES

Number of samples	Limits of fat percentages	Weights of milk	Means of percentages of components				S-N-F	Sp.g.
			Fat	Protein	Lactose	Ash		
29	2.72-3.24	29901.7	3.0738	3.1031	5.0466	.6852	11.9079	1.03130
140	3.25-3.74	128614.2	3.5623	3.4499	4.9608	.7029	12.6756	1.03249
283	3.75-4.24	220699.3	4.0012	3.6106	4.9002	.7202	13.2319	1.03266
292	4.25-4.74	195487.2	4.4826	3.8487	4.8459	.7206	13.9039	1.03310
156	4.75-5.24	92598.9	4.9714	4.0930	4.8112	.7393	14.6149	1.03376
76	5.25-5.74	35989.1	5.4326	4.3791	4.7150	.7527	15.2795	1.03390
17	5.75-6.24	6506.3	5.9312	4.7088	4.4594	.7607	15.8606	1.03331
8	6.25-6.74	4870.0	6.4462	4.5875	4.7588	.7895	16.5812	1.03366
0	6.75-7.24	.....	.....	.....	.....	.....	.....	.....
1	7.25-7.74	441.8	7.5000	5.5400	4.0400	.8140	17.8900	1.03480
1002	.....	715108.5	4.3687	3.8046	4.8597	.7254	13.7583	1.03301
Mean percentages of components based on milk yields								
29	2.72-3.24	29901.7	3.0779	3.0827	5.0704	.6868	11.9169	1.03136
140	3.25-3.74	128614.2	3.5542	3.3839	4.9948	.7006	12.6333	1.03244
283	3.75-4.24	220699.3	3.9981	3.5373	4.9495	.7198	13.2044	1.03272
292	4.25-4.74	195487.2	4.4798	3.7433	4.9280	.7233	13.8745	1.03316
156	4.75-5.24	92598.9	4.9587	3.9614	4.8556	.7326	14.5081	1.03372
76	5.25-5.74	35989.1	5.4302	4.2479	4.7397	.7419	15.1603	1.03372
17	5.75-6.24	6506.3	5.9163	4.5596	4.5573	.7599	15.7947	1.03318
8	6.25-6.74	4870.0	6.4164	4.1275	4.8489	.7647	16.1561	1.03307
0	6.75-7.24	.....	.....	.....	.....	.....	.....	.....
1	7.25-7.74	441.8	7.5000	5.5400	4.0400	.8140	17.8900	1.03480
1002	.....	715108.5	4.2440	3.6523	4.9293	.7194	13.5448	1.03292

TABLE 6.—(Concluded)

Number of samples	Limits of fat percentages	Weights of milk	Means of percentages of components					S-N-F	Sp.g.
			Fat	Protein	Lactose	Ash	T.S.		
120	2.60-3.24	176125.3	3.0357	3.1034	4.9159	.6716	11.7266	8.6909	1.03160
204	3.25-3.74	300251.7	3.5285	3.4049	4.8680	.6890	12.4902	8.9617	1.03219
442	3.75-4.24	353951.2	3.9945	3.5832	4.8573	.7078	13.1426	9.1481	1.03248
487	4.25-4.74	334077.5	4.4901	3.7964	4.8599	.7162	13.8627	9.3726	1.03296
319	4.75-5.24	198870.2	4.9904	3.9965	4.8755	.7298	14.5920	9.6016	1.03352
194	5.25-5.74	103181.8	5.4496	4.2139	4.8588	.7437	15.2654	9.8158	1.03395
87	5.75-6.24	43258.3	5.9493	4.4041	4.7919	.7505	15.8913	9.9470	1.03395
40	6.25-6.74	17673.5	6.4465	4.4415	4.7952	.7683	16.4500	10.0045	1.03351
7	6.75-7.24	2171.9	6.8643	4.7386	4.8557	.7920	17.2514	10.3871	1.03334
6	7.25-7.74	2706.0	7.5167	4.6600	4.5667	.7683	17.5017	9.9850	1.03365
0	7.75-8.24	.....	.....	.....	.....	.....	.....	.....	.....
2	8.25-8.74	718.8	8.3650	4.9250	3.6050	.7715	17.6700	9.3050	1.03460
1998	.....	1563986.2	4.4484	3.7689	3.8598	.7155	13.7925	9.3441	1.03290
Mean percentages of components based on milk yields									
120	2.60-3.24	176125.3	3.0318	3.0918	4.9078	.6706	11.7021	8.6703	1.03168
204	3.25-3.74	300251.7	3.5138	3.3648	4.9321	.6865	12.4973	8.9832	1.03242
442	3.75-4.24	353951.2	3.9914	3.5155	4.9159	.7063	13.1290	9.1373	1.03263
487	4.25-4.74	334077.5	4.4896	3.7053	4.9459	.7130	13.8539	9.3643	1.03310
319	4.75-5.24	198870.2	4.9862	3.9084	4.9248	.7264	14.5456	9.5594	1.03358
194	5.25-5.74	103181.8	5.4491	4.1248	4.9050	.7389	15.2177	9.7686	1.03397
87	5.75-6.24	43258.3	5.9280	4.3421	4.8414	.7518	15.8639	9.9358	1.03426
40	6.25-6.74	17673.5	6.4250	4.2706	4.8359	.7636	16.2942	9.8692	1.03440
7	6.75-7.24	2171.9	6.8682	4.6102	4.8939	.7901	17.1619	10.2947	1.03310
6	7.25-7.74	2706.0	7.5473	4.2831	4.7347	.7627	17.3285	9.7812	1.03305
0	7.75-8.24	.....	.....	.....	.....	.....	.....	.....	.....
2	8.25-8.74	718.8	8.3639	4.6244	3.8954	.7860	17.6739	9.3100	1.03513
1998	.....	1563986.2	4.2198	3.6667	4.9212	.7069	13.4545	9.2346	1.03286

TABLE 7.—MEANS, STANDARD DEVIATIONS, AND COEFFICIENTS OF VARIATION OF ANALYTICAL RESULTS IN STUDY OF COMPOSITION OF MILK OF VARIOUS BREEDS

	Means		Standard deviations		Coefficients of variation
Ayrshire Milk					
Fat.....	4.1418	± .0253	.5413	± .0179	13.07
Protein.....	3.5788	± .0158	.3371	± .0111	9.42
Lactose.....	4.6875	± .0221	.4731	± .0156	10.09
Ash.....	.6828	± .0018	.0393	± .0013	5.76
Total solids.....	13.1082	± .0449	.9590	± .0317	7.32
Water.....	86.8918	± .0449	.9590	± .0317	1.14
Solids-not-fat.....	8.9435	± .0266	.5692	± .0188	6.36
Specific gravity.....	1.0317	± .0001	.0022	± .00007	.21
Guernsey Milk					
Fat.....	5.1869	± .0268	.7110	± .0189	13.71
Protein.....	4.0150	± .0176	.4677	± .0124	11.65
Lactose.....	4.9117	± .0113	.3000	± .0080	6.11
Ash.....	.7424	± .0018	.0467	± .0012	6.29
Total solids.....	14.8715	± .0413	1.0960	± .0292	7.37
Water.....	85.1285	± .0413	1.0960	± .0292	1.29
Solids-not-fat.....	9.6752	± .0184	.4888	± .0130	5.05
Specific gravity.....	1.0336	± .00007	.0018	± .00005	.17
Holstein Milk					
Fat.....	3.5485	± .0234	.5685	± .0166	16.02
Protein.....	3.4179	± .0210	.5109	± .0149	14.95
Lactose.....	4.8631	± .0112	.2727	± .0079	5.61
Ash.....	.6814	± .0019	.0453	± .0013	6.65
Total solids.....	12.5010	± .0427	1.0355	± .0302	8.28
Water.....	87.4990	± .0427	1.0355	± .0302	1.18
Solids-not-fat.....	8.9698	± .0240	.5836	± .0170	6.51
Specific gravity.....	1.0324	± .0001	.0018	± .00005	.17
Jersey Milk					
Fat.....	5.1784	± .0383	.8017	± .0271	15.48
Protein.....	3.8643	± .0204	.4273	± .0144	11.06
Lactose.....	4.9398	± .0173	.3611	± .0122	7.31
Ash.....	.7022	± .0021	.0440	± .0015	6.27
Total solids.....	14.6872	± .0529	1.1065	± .0374	7.53
Water.....	85.3128	± .0529	1.1065	± .0374	1.30
Solids-not-fat.....	9.5063	± .0227	.4758	± .0161	5.01
Specific gravity.....	1.0331	± .0001	.0024	± .00008	.23
Milk from Guernsey-Holstein Crosses					
Fat.....	4.3715	± .0140	.6590	± .0099	15.07
Protein.....	3.8054	± .0109	.5112	± .0077	13.43
Lactose.....	4.8573	± .0077	.3629	± .0056	7.47
Ash.....	.7273	± .0010	.0454	± .0007	6.24
Total solids.....	13.7610	± .0217	1.0176	± .0153	7.39
Water.....	86.2390	± .0217	1.0176	± .0153	1.18
Solids-not-fat.....	9.3942	± .0107	.5010	± .0075	5.33
Specific gravity.....	1.0330	± .00003	.0016	± .00002	.15
All samples					
Fat.....	4.4469	± .0127	.8391	± .0090	18.87
Protein.....	3.7696	± .0077	.5130	± .0055	13.61
Lactose.....	4.8570	± .0055	.3631	± .0039	7.48
Ash.....	.7156	± .0007	.0496	± .0005	6.93
Total solids.....	13.7944	± .0192	1.2699	± .0135	9.21
Water.....	86.2056	± .0192	1.2699	± .0135	1.47
Solids-not-fat.....	9.3458	± .0083	.5520	± .0059	5.91
Specific gravity.....	1.0329	± .00003	.0019	± .00002	.18

TABLE 8.—COEFFICIENTS OF CORRELATIONS OF PERCENTAGES OF MILK COMPONENTS

	Ayrshire milk				Guernsey milk				Holstein milk				Jersey milk				Guernsey-Holstein milk				All samples			
	a = percentage of milk fat				b = percentage of protein				c = percentage of lactose				d = percentage of ash				e = percentage of total solids				f = percentage of solids-not-fat			
	g = specific gravity				h = percentage of water																			
r_{ab}	.5883 ± .0306	.6790 ± .0203	.7267 ± .0194	.5296 ± .0344	.6346 ± .0127	.6639 ± .0084	.6639 ± .0084	.5296 ± .0344	.6346 ± .0127	.6639 ± .0084	.6639 ± .0084	.5296 ± .0344	.6346 ± .0127	.6639 ± .0084	.6639 ± .0084	.6639 ± .0084	.5296 ± .0344	.6346 ± .0127	.6639 ± .0084	.6639 ± .0084	.5296 ± .0344	.6346 ± .0127	.6639 ± .0084	.6639 ± .0084
r_{ac}	.1580 ± .0456	.1362 ± .0369	.1373 ± .0404	.1189 ± .0471	.2441 ± .0200	.0658 ± .0150	.0658 ± .0150	.1362 ± .0369	.1373 ± .0404	.0658 ± .0150	.0658 ± .0150	.1189 ± .0471	.2441 ± .0200	.0658 ± .0150	.0658 ± .0150	.0658 ± .0150	.1362 ± .0369	.1373 ± .0404	.0658 ± .0150	.0658 ± .0150	.1362 ± .0369	.1373 ± .0404	.0658 ± .0150	.0658 ± .0150
r_{ad}	.3160 ± .0421	.4745 ± .0292	.4410 ± .0332	.4745 ± .0292	.2738 ± .0442	.4436 ± .0121	.4436 ± .0121	.4745 ± .0292	.4410 ± .0332	.2738 ± .0442	.4436 ± .0121	.4745 ± .0292	.2738 ± .0442	.4436 ± .0121	.4436 ± .0121	.4436 ± .0121	.4745 ± .0292	.4410 ± .0332	.2738 ± .0442	.4436 ± .0121	.4745 ± .0292	.4410 ± .0332	.4436 ± .0121	.4436 ± .0121
r_{ae}	.8422 ± .0136	.9235 ± .0055	.8750 ± .0265	.8750 ± .0265	.9072 ± .0085	.8916 ± .0044	.8916 ± .0044	.9235 ± .0055	.8422 ± .0136	.9072 ± .0085	.8916 ± .0044	.8750 ± .0265	.8750 ± .0265	.9072 ± .0085	.8916 ± .0044	.8916 ± .0044	.8422 ± .0136	.8916 ± .0044	.9072 ± .0085	.8916 ± .0044	.8750 ± .0265	.8750 ± .0265	.9072 ± .0085	.8916 ± .0044
r_{af}	.4990 ± .0351	.6727 ± .0206	.5979 ± .0265	.5979 ± .0265	.4140 ± .0396	.5063 ± .0158	.5063 ± .0158	.6727 ± .0206	.4990 ± .0351	.4140 ± .0396	.5063 ± .0158	.5979 ± .0265	.5979 ± .0265	.4140 ± .0396	.5063 ± .0158	.5063 ± .0158	.4990 ± .0351	.5063 ± .0158	.4140 ± .0396	.5063 ± .0158	.5979 ± .0265	.5979 ± .0265	.4140 ± .0396	.5063 ± .0158
r_{ag}	.2284 ± .0443	.2260 ± .0357	.3438 ± .0363	.3438 ± .0363	.1932 ± .0460	.3842 ± .0129	.3842 ± .0129	.2260 ± .0357	.2284 ± .0443	.1932 ± .0460	.3842 ± .0129	.3438 ± .0363	.3438 ± .0363	.2260 ± .0357	.2284 ± .0443	.2284 ± .0443	.2260 ± .0357	.3438 ± .0363	.3438 ± .0363	.1932 ± .0460	.3842 ± .0129	.3842 ± .0129	.2284 ± .0443	.2284 ± .0443
r_{ah}	.8422 ± .0136	.9235 ± .0055	.8750 ± .0265	.8750 ± .0265	.9072 ± .0085	.8916 ± .0044	.8916 ± .0044	.9235 ± .0055	.8422 ± .0136	.9072 ± .0085	.8916 ± .0044	.8750 ± .0265	.8750 ± .0265	.9072 ± .0085	.8916 ± .0044	.8916 ± .0044	.8422 ± .0136	.8916 ± .0044	.9072 ± .0085	.8916 ± .0044	.8750 ± .0265	.8750 ± .0265	.9072 ± .0085	.8916 ± .0044
r_{be}	.0599 ± .0446	.3543 ± .0329	.0639 ± .0410	.3578 ± .0417	.4228 ± .0175	.2616 ± .0141	.2616 ± .0141	.3543 ± .0329	.0599 ± .0446	.4228 ± .0175	.2616 ± .0141	.0639 ± .0410	.3578 ± .0417	.4228 ± .0175	.2616 ± .0141	.2616 ± .0141	.0599 ± .0446	.4228 ± .0175	.2616 ± .0141	.0639 ± .0410	.3578 ± .0417	.4228 ± .0175	.2616 ± .0141	.2616 ± .0141
r_{bd}	.4781 ± .0361	.7002 ± .0192	.6136 ± .0256	.5285 ± .0345	.5544 ± .0148	.6222 ± .0092	.6222 ± .0092	.7002 ± .0192	.4781 ± .0361	.6136 ± .0256	.5285 ± .0345	.5544 ± .0148	.5285 ± .0345	.6136 ± .0256	.5285 ± .0345	.5285 ± .0345	.4781 ± .0361	.5285 ± .0345	.6136 ± .0256	.5285 ± .0345	.5544 ± .0148	.6222 ± .0092	.6222 ± .0092	.5544 ± .0148
r_{be}	.6585 ± .0265	.8130 ± .0128	.8915 ± .0085	.6834 ± .0255	.7776 ± .0084	.7853 ± .0058	.7853 ± .0058	.8130 ± .0128	.6585 ± .0265	.8915 ± .0085	.6834 ± .0255	.7776 ± .0084	.7776 ± .0084	.7853 ± .0058	.7853 ± .0058	.7853 ± .0058	.6585 ± .0265	.7776 ± .0084	.7776 ± .0084	.6834 ± .0255	.7776 ± .0084	.7776 ± .0084	.7853 ± .0058	.7853 ± .0058
r_{bf}	.5478 ± .0327	.8053 ± .0132	.8798 ± .0093	.8798 ± .0093	.7480 ± .0094	.7614 ± .0064	.7614 ± .0064	.8053 ± .0132	.5478 ± .0327	.8798 ± .0093	.7480 ± .0094	.7480 ± .0094	.7480 ± .0094	.7614 ± .0064	.7614 ± .0064	.7614 ± .0064	.5478 ± .0327	.7480 ± .0094	.7480 ± .0094	.7480 ± .0094	.7480 ± .0094	.7480 ± .0094	.7614 ± .0064	.7614 ± .0064
r_{bg}	.2759 ± .0432	.4028 ± .0315	.6544 ± .0236	.6544 ± .0236	.4299 ± .0174	.4705 ± .0117	.4705 ± .0117	.4028 ± .0315	.2759 ± .0432	.6544 ± .0236	.4299 ± .0174	.4299 ± .0174	.4299 ± .0174	.4705 ± .0117	.4705 ± .0117	.4705 ± .0117	.2759 ± .0432	.4299 ± .0174	.4299 ± .0174	.4299 ± .0174	.4299 ± .0174	.4299 ± .0174	.4705 ± .0117	.4705 ± .0117
r_{bh}	.6585 ± .0265	.8130 ± .0128	.8915 ± .0085	.6834 ± .0255	.7776 ± .0084	.7853 ± .0058	.7853 ± .0058	.8130 ± .0128	.6585 ± .0265	.8915 ± .0085	.6834 ± .0255	.7776 ± .0084	.7776 ± .0084	.7853 ± .0058	.7853 ± .0058	.7853 ± .0058	.6585 ± .0265	.7776 ± .0084	.7776 ± .0084	.6834 ± .0255	.7776 ± .0084	.7776 ± .0084	.7853 ± .0058	.7853 ± .0058
r_{cd}	.1054 ± .0462	.2444 ± .0354	.1646 ± .0401	.1608 ± .0466	.1787 ± .0206	.1150 ± .0149	.1150 ± .0149	.2444 ± .0354	.1054 ± .0462	.1646 ± .0401	.1608 ± .0466	.1608 ± .0466	.1608 ± .0466	.1787 ± .0206	.1787 ± .0206	.1787 ± .0206	.1054 ± .0462	.1608 ± .0466	.1608 ± .0466	.1608 ± .0466	.1608 ± .0466	.1608 ± .0466	.1150 ± .0149	.1150 ± .0149
r_{ce}	.5473 ± .0328	.0081 ± .0376	.1488 ± .0403	.0808 ± .0475	.0366 ± .0213	.1232 ± .0149	.1232 ± .0149	.0081 ± .0376	.5473 ± .0328	.1488 ± .0403	.0808 ± .0475	.0808 ± .0475	.0808 ± .0475	.0366 ± .0213	.0366 ± .0213	.0366 ± .0213	.5473 ± .0328	.0366 ± .0213	.0366 ± .0213	.0366 ± .0213	.0366 ± .0213	.0366 ± .0213	.1232 ± .0149	.1232 ± .0149
r_{cf}	.7746 ± .0187	.2346 ± .0356	.3718 ± .0355	.3946 ± .0404	.2374 ± .0201	.3638 ± .0131	.3638 ± .0131	.2346 ± .0356	.7746 ± .0187	.3718 ± .0355	.3946 ± .0404	.3946 ± .0404	.3946 ± .0404	.2374 ± .0201	.2374 ± .0201	.2374 ± .0201	.7746 ± .0187	.2374 ± .0201	.2374 ± .0201	.2374 ± .0201	.2374 ± .0201	.2374 ± .0201	.3638 ± .0131	.3638 ± .0131
r_{cg}	.7086 ± .0232	.1684 ± .0306	.4571 ± .0326	.3584 ± .0417	.2259 ± .0202	.3540 ± .0132	.3540 ± .0132	.1684 ± .0306	.7086 ± .0232	.4571 ± .0326	.3584 ± .0417	.3584 ± .0417	.3584 ± .0417	.2259 ± .0202	.2259 ± .0202	.2259 ± .0202	.7086 ± .0232	.3584 ± .0417	.3584 ± .0417	.3584 ± .0417	.3584 ± .0417	.3584 ± .0417	.3540 ± .0132	.3540 ± .0132
r_{ch}	.5473 ± .0328	.0081 ± .0376	.1488 ± .0403	.0808 ± .0475	.0366 ± .0213	.1232 ± .0149	.1232 ± .0149	.0081 ± .0376	.5473 ± .0328	.1488 ± .0403	.0808 ± .0475	.0808 ± .0475	.0808 ± .0475	.0366 ± .0213	.0366 ± .0213	.0366 ± .0213	.5473 ± .0328	.0366 ± .0213	.0366 ± .0213	.0366 ± .0213	.0366 ± .0213	.0366 ± .0213	.1232 ± .0149	.1232 ± .0149
r_{de}	.3232 ± .0419	.5939 ± .0244	.5339 ± .0295	.3849 ± .0407	.5036 ± .0159	.5497 ± .0105	.5497 ± .0105	.5939 ± .0244	.3232 ± .0419	.5339 ± .0295	.3849 ± .0407	.3849 ± .0407	.3849 ± .0407	.5036 ± .0159	.5036 ± .0159	.5036 ± .0159	.3232 ± .0419	.5036 ± .0159	.5036 ± .0159	.5036 ± .0159	.5036 ± .0159	.5036 ± .0159	.5497 ± .0105	.5497 ± .0105
r_{df}	.2368 ± .0441	.6188 ± .0232	.5467 ± .0289	.4828 ± .0367	.5183 ± .0156	.5743 ± .0101	.5743 ± .0101	.6188 ± .0232	.2368 ± .0441	.5467 ± .0289	.4828 ± .0367	.4828 ± .0367	.4828 ± .0367	.5183 ± .0156	.5183 ± .0156	.5183 ± .0156	.2368 ± .0441	.5183 ± .0156	.5183 ± .0156	.5183 ± .0156	.5183 ± .0156	.5183 ± .0156	.5743 ± .0101	.5743 ± .0101
r_{dg}	.2270 ± .0440	.4943 ± .0284	.5338 ± .0295	.3434 ± .0422	.4563 ± .0169	.4720 ± .0117	.4720 ± .0117	.4943 ± .0284	.2270 ± .0440	.5338 ± .0295	.3434 ± .0422	.3434 ± .0422	.3434 ± .0422	.4563 ± .0169	.4563 ± .0169	.4563 ± .0169	.2270 ± .0440	.4563 ± .0169	.4563 ± .0169	.4563 ± .0169	.4563 ± .0169	.4563 ± .0169	.4720 ± .0117	.4720 ± .0117
r_{dh}	.3232 ± .0419	.5939 ± .0244	.5339 ± .0295	.3849 ± .0407	.5036 ± .0159	.5497 ± .0105	.5497 ± .0105	.5939 ± .0244	.3232 ± .0419	.5339 ± .0295	.3849 ± .0407	.3849 ± .0407	.3849 ± .0407	.5036 ± .0159	.5036 ± .0159	.5036 ± .0159	.3232 ± .0419	.5036 ± .0159	.5036 ± .0159	.5036 ± .0159	.5036 ± .0159	.5036 ± .0159	.5497 ± .0105	.5497 ± .0105
r_{ef}	.8588 ± .0123	.8416 ± .0110	.8869 ± .0088	.7243 ± .0227	.8127 ± .0072	.8360 ± .0045	.8360 ± .0045	.8416 ± .0110	.8588 ± .0123	.8869 ± .0088	.7243 ± .0227	.7243 ± .0227	.7243 ± .0227	.8127 ± .0072	.8127 ± .0072	.8127 ± .0072	.8588 ± .0123	.8127 ± .0072	.8127 ± .0072	.8127 ± .0072	.8127 ± .0072	.8127 ± .0072	.8360 ± .0045	.8360 ± .0045
r_{eg}	.5748 ± .0313	.4027 ± .0315	.6576 ± .0234	.4053 ± .0400	.4975 ± .0160	.5339 ± .0108	.5339 ± .0108	.4027 ± .0315	.5748 ± .0313	.6576 ± .0234	.4053 ± .0400	.4053 ± .0400	.4053 ± .0400	.4975 ± .0160	.4975 ± .0160	.4975 ± .0160	.5748 ± .0313	.4975 ± .0160	.4975 ± .0160	.4975 ± .0160	.4975 ± .0160	.4975 ± .0160	.5339 ± .0108	.5339 ± .0108
r_{fg}	.7584 ± .0199	.5299 ± .0271	.8330 ± .0126	.6553 ± .0273	.6439 ± .0125	.5705 ± .0102	.5705 ± .0102	.5299 ± .0271	.7584 ± .0199	.8330 ± .0126	.6553 ± .0273	.6553 ± .0273	.6553 ± .0273	.6439 ± .0125	.6439 ± .0125	.6439 ± .0125	.7584 ± .0199	.6439 ± .0125	.6439 ± .0125	.6439 ± .0125	.6439 ± .0125	.6439 ± .0125	.5705 ± .0102	.5705 ± .0102
r_{fh}	.8588 ± .0123	.8416 ± .0110	.8869 ± .0088	.7243 ± .0227	.8127 ± .0072	.8360 ± .0045	.8360 ± .0045	.8416 ± .0110	.8588 ± .0123	.8869 ± .0088	.7243 ± .0227	.7243 ± .0227	.7243 ± .0227	.8127 ± .0072	.8127 ± .0072	.8127 ± .0072	.8588 ± .0123	.8127 ± .0072	.8127 ± .0072	.8127 ± .0072	.8127 ± .0072	.8127 ± .0072	.8360 ± .0045	.8360 ± .0045
r_{gh}	.5748 ± .0313	.4027 ± .0315	.6576 ± .0234	.4053 ± .0400	.4975 ± .0160	.5339 ± .0108	.5339 ± .0108	.4027 ± .0315	.5748 ± .0313	.6576 ± .0234	.4053 ± .0400	.4053 ± .0400	.4053 ± .0400	.4975 ± .0160	.4975 ± .0160	.4975 ± .0160	.5748 ± .0313	.4975 ± .0160	.4975 ± .0160	.4975 ± .0160	.4975 ± .0160	.4975 ± .0160	.5339 ± .0108	.5339 ± .0108

TABLE 9.—EQUATIONS SHOWING REGRESSION OF EACH ANALYTICAL VALUE UPON EVERY OTHER IN THE STUDY OF MILK COMPOSITION

Ayrshire milk			
No.	Percent fat =	No.	Total solids =
1	.9447 percent protein + .7609	29	1.4921 percent fat + 6.9282
2	.1808 percent lactose + 3.2943	30	1.8734 percent protein + 6.4037
3	4.3524 percent ash + 1.1700	31	1.1094 percent lactose + 7.9079
4	.4754 percent total solids - 2.0898	32	7.9038 percent ash + 7.7115
5	45.4502 - .4754 percent water	33	1.4469 percent solids-not-fat + .1678
6	.4745 percent solids-not-fat - .1019	34	250.5606 specific gravity - 245.3952
7	56.1968 specific gravity - 53.8364		
Percent protein =		Percent solids-not-fat =	
8	.3664 percent fat + 2.0612	35	.5247 percent fat + 6.7703
9	3.7790 - .0427 percent lactose	36	.9250 percent protein + 5.6331
10	4.1010 percent ash + .7786	37	.9319 percent lactose + 4.5752
11	.2315 percent total solids + .5443	38	3.4297 percent ash + 6.6017
12	23.6943 - .2315 percent water	39	.5097 percent total solids + 2.2623
13	.3244 percent solids-not-fat + .6775	40	53.2323 - .5097 percent water
14	42.2754 specific gravity - 40.0367	41	196.2188 specific gravity - 193.4954
Percent lactose =		Percent water =	
15	.1381 percent fat + 4.1155	42	93.0718 - 1.4921 percent fat
16	4.9885 - .0841 percent protein	43	93.5820 - 1.8694 percent protein
17	5.5538 - 1.2688 percent ash	44	92.0921 - 1.1094 percent lactose
18	.2700 percent total solids + 1.1483	45	92.2891 - 7.9038 percent ash
19	28.1483 - .2700 percent water	46	99.8322 - 1.4469 percent solids-not-fat
20	.6438 percent solids-not-fat - 1.0703	47	345.3384 - 250.5056 specific gravity
21	152.3182 specific gravity - 152.5242		
Percent ash =		Specific gravity =	
22	.0229 percent fat + .5880	48	.00094 percent fat + 1.0278
23	.0557 percent protein + .4835	49	.0018 percent protein + 1.0253
24	.7241 - .0088 percent lactose	50	.0033 percent lactose + 1.0162
25	.0133 percent total solids + .5085	51	.0127 percent ash + 1.0230
26	1.8385 - .0133 percent water	52	.00132 percent total solids + 1.0144
27	.0163 percent solids-not-fat + .5370	53	1.1464 - .00132 percent water
28	4.0550 specific gravity - 3.5007	54	.0030 percent solids-not-fat + 1.0049
Guernsey milk			
Percent fat =		Percent total solids =	
1	1.0322 percent protein + 1.0426	29	1.4236 percent fat + 7.4874
2	6.7724 - .3228 percent lactose	30	1.9052 percent protein + 7.2217
3	7.2243 percent ash - .1763	31	.0296 percent lactose + 14.7261
4	.5991 percent total solids - 3.7226	32	13.9382 percent ash + 4.5238
5	56.1874 - .5991 percent water	33	2.0384 percent solids-not-fat - 4.9044
6	.9875 percent solids-not-fat - 4.2803	34	245.1996 specific gravity - 238.6208
7	89.2700 specific gravity - 87.0826		
Percent protein =		Percent solids-not-fat =	
8	.4466 percent fat + 1.6985	35	.4625 percent fat + 7.2763
9	6.7282 - .5524 percent lactose	36	.8418 percent protein + 6.2954
10	7.1070 percent ash - 1.2612	37	.3822 percent lactose + 7.7979
11	.3469 percent total solids - 1.1439	38	6.4769 percent ash + 4.8667
12	33.5461 - .3469 percent water	39	.3754 percent total solids + 4.1127
13	.7707 percent solids-not-fat - 3.4417	40	41.6324 - .3754 percent water
14	104.6609 specific gravity - 104.1625	41	143.8973 specific gravity - 139.0570
Percent lactose =		Percent water =	
15	5.2099 - .0575 percent fat	42	92.5126 - 1.4236 percent fat
16	5.8239 - .2272 percent protein	43	92.7791 - 1.9055 percent protein
17	6.0773 - 1.5700 percent ash	44	85.2739 - .0296 percent lactose
18	.00222 percent total solids + 4.8787	45	95.4762 - 13.9382 percent ash
19	5.1007 - .00222 percent water	46	103.3856 - 1.8870 percent solids-not-fat
20	.1440 percent solids-not-fat + 3.5185	47	338.5668 - 245.1996 specific gravity
21	28.0667 specific gravity - 24.0980		
Percent ash =		Specific gravity =	
22	.0312 percent fat + .5806	48	.00057 percent fat + 1.0307
23	.0699 percent protein + .4618	49	.0015 percent protein + 1.0276
24	.9290 - .0380 percent lactose	50	.0010 percent lactose + 1.0287
25	.0253 percent total solids + .3662	51	.0190 percent ash + 1.0195
26	2.8962 - .0253 percent water	52	.00066 percent total solids + 1.0238
27	.0591 percent solids-not-fat + .1706	53	1.0898 - .00066 percent water
28	12.8243 specific gravity - 12.5128	54	.0020 percent solids-not-fat + 1.0142

TABLE 9.—(Continued)

Holstein milk			
No.	Percent fat =	No.	Percent total solids =
1	.8086 percent protein + .7848	29	1.5938 percent fat + 6.8454
2	4.9403 - .2862 percent lactose	30	1.8069 percent protein + 6.3252
3	5.5344 percent ash - .2226	31	.5650 percent lactose + 9.7533
4	.4804 percent total solids - 2.4570	32	12.2043 percent ash + 4.1850
5	45.5830 - .4804 percent water	33	1.5736 percent solids-not-fat - 1.6139
6	.5824 percent solids-not-fat - 1.6755	34	378.3207 specific gravity - 378.0587
7	108.5835 specific gravity - 108.5521		
	Percent protein =		Percent solids-not-fat =
8	.6531 percent fat + 1.1004	35	.6138 percent fat + 6.7917
9	4.0000 - .1197 percent lactose	36	1.0050 percent protein + 5.5348
10	6.9202 percent ash - 1.2975	37	.7957 percent lactose + 5.1002
11	.4399 percent total solids - 2.0813	38	7.0431 percent ash + 4.1706
12	41.9087 - .4399 percent water	39	.4999 percent total solids + 2.7206
13	.7702 percent solids-not-fat - 3.4906	40	52.7106 - .4999 percent water
14	185.7405 specific gravity - 188.3406	41	270.0771 specific gravity - 269.8578
	Percent lactose =		Percent water =
15	5.0969 - .0659 percent fat	42	93.1546 - 1.5938 percent fat
16	4.9797 - .0341 percent protein	43	93.6748 - 1.8069 percent protein
17	5.5383 - .9909 percent ash	44	90.2467 - .5650 percent lactose
18	.0392 percent total solids + 4.3731	45	95.8150 - 12.2043 percent ash
19	8.2931 - .0392 percent water	46	101.6139 - 1.5736 percent solids-not-fat
20	.1734 percent solids-not-fat + 3.3077	47	478.0587 - 378.3027 specific gravity
21	69.2507 specific gravity - 66.6313		
	Percent ash =		Specific gravity =
22	.0351 percent fat + .5568	48	.0011 percent fat + 1.0285
23	.0544 percent protein + .4955	49	.0023 percent protein + 1.0245
24	.6945 - .0027 percent lactose	50	.0030 percent lactose + 1.0178
25	.0233 percent total solids + .3901	51	.0212 percent ash + 1.0180
26	2.7201 - .0233 percent water	52	.00114 percent total solids + 1.0181
27	.0424 percent solids-not-fat + .3011	53	1.1321 - .00114 percent water
28	13.4340 specific gravity - 13.1879	54	.0026 percent solids-not-fat + 1.0091
Jersey milk			
	Percent fat =		Percent total solids =
1	.9936 percent protein + 1.3387	29	1.2521 percent fat + 8.2033
2	6.4825 - .2640 percent lactose	30	1.7697 percent protein + 7.8485
3	4.9888 percent ash + 1.6753	31	.2476 percent lactose + 13.4641
4	.6573 percent total solids - 4.4755	32	9.6793 percent ash + 7.8904
5	61.2545 - .6373 percent water	33	1.6844 percent solids-not-fat - 1.3252
6	.6976 percent solids-not-fat - 1.4532	34	186.8602 specific gravity - 178.3581
7	64.5369 specific gravity - 61.4947		
	Percent protein =		Percent solids-not-fat =
8	.2823 percent fat + 2.4024	35	.2457 percent fat + 8.2340
9	5.9558 - .4234 percent lactose	36	.7494 percent protein + 6.6104
10	5.1325 percent ash + .2603	37	.5199 percent lactose + 6.9381
11	.2639 percent total solids - .0116	38	5.2208 percent ash + 5.8403
12	26.3783 - .2639 percent water	39	.3114 percent total solids + 4.9327
13	.6044 percent solids-not-fat - 1.8813	40	36.0727 - .3114 percent water
14	65.4125 specific gravity - 63.7134	41	129.9137 specific gravity - 124.7070
	Percent lactose =		Percent water =
15	5.2163 - .0534 percent fat	42	91.7967 - 1.2521 percent fat
16	6.1084 - .3024 percent protein	43	92.1515 - 1.7697 percent protein
17	5.8665 - 1.3197 percent ash	44	86.5359 - .4476 percent lactose
18	.0264 percent total solids + 4.5521	45	92.1096 - 9.6793 percent ash
19	7.1921 - .0264 percent water	46	101.3252 - 1.6844 percent solids-not-fat
20	.2995 percent solids-not-fat + 2.0927	47	278.3581 - 186.8602 specific gravity
21	53.9243 specific gravity - 50.7694		
	Percent ash =		Specific gravity =
22	.0150 percent fat + .6245	48	.00058 percent fat + 1.0301
23	.0544 percent protein + .4920	49	.0021 percent protein + 1.0250
24	.7990 - .0196 percent lactose	50	.0024 percent lactose + 1.0212
25	.0153 percent total solids + .4775	51	.0187 percent ash + 1.0200
26	2.0075 - .0153 percent water	52	.00088 percent total solids + 1.0202
27	.0447 percent solids-not-fat + .2773	53	1.1082 - .00088 percent water
28	6.2773 specific gravity - 5.7829	54	.0033 percent solids-not-fat + 1.0017

TABLE 9.—(Concluded)

Milk from Guernsey-Holstein crosses	
No. 1. Percent fat =	No. 1. Percent total solids =
2 .8181 percent protein + 1.2583	29 1.3768 percent fat + 7.7432
3 6.5247 - .4433 percent lactose	30 1.5479 percent protein + 7.8706
4 5.5144 percent ash + .3609	31 14.2594 - .1026 percent lactose
5 .5774 percent total solids - 3.5741	32 11.2877 percent ash + 5.5515
6 54.1659 - .5774 percent water	33 1.6507 percent solids-not-fat - 1.7460
7 .6660 percent solids-not-fat - 1.8850	34 316.4100 specific gravity - 313.0905
132.0883 specific gravity - 132.0757	
Percent protein =	Percent solids-not-fat =
8 .4992 percent fat + 1.6231	35 .3849 percent fat + 7.7116
9 6.6984 - .5956 percent lactose	36 .7330 percent protein + 6.6048
10 6.2425 percent ash - .7348	37 .3277 percent lactose + 7.8025
11 .3907 percent total solids - 1.5710	38 5.7195 percent ash + 5.2344
12 37.4990 - .3907 percent water	39 .4001 percent total solids + 3.8884
13 .7633 percent solids-not-fat - 3.3652	40 43.8984 - .4001 percent water
14 137.3531 specific gravity - 138.0804	41 201.6212 specific gravity - 198.8805
Percent lactose =	Percent water =
15 5.4448 - .1344 percent fat	42 92.2577 - 1.3768 percent fat
16 5.9993 - .3001 percent protein	43 92.1294 - 1.5479 percent protein
17 5.8962 - 1.4284 percent ash	44 86.7374 - .1026 percent lactose
18 5.0376 - .0131 percent total solids	45 94.4485 - 11.2877 percent ash
19 5.9870 - .0131 percent water	46 101.7460 - 1.6507 percent solids-not-fat
20 .1720 percent solids-not-fat + 3.2415	47 413.0905 - 316.4100 specific gravity
21 51.2369 specific gravity - 48.0704	
Percent ash =	Specific gravity =
22 .0262 percent fat + .6128	48 .00077 percent fat + 1.0296
23 .0492 percent protein + .5401	49 .0013 percent protein + 1.0281
24 .8361 - .0224 percent lactose	50 .0010 percent lactose + 1.0281
25 .0225 percent total solids + .4177	51 .0161 percent ash + 1.0213
26 2.6677 - .0225 percent water	52 .00078 percent total solids + 1.0223
27 .0470 percent solids-not-fat + .2858	53 1.1003 - .00078 percent water
28 12.9475 specific gravity - 12.6475	54 .0021 percent solids-not-fat + 1.0133
All samples	
Percent fat =	Percent total solids =
1 1.0859 percent protein + .3535	29 1.3953 percent fat + 7.5896
2 5.1856 - .1521 percent lactose	30 1.9439 percent protein + 6.4667
3 7.5045 percent ash - .9233	31 .4239 percent lactose + 11.7355
4 .6093 percent total solids - 3.9580	32 14.0739 percent ash + 3.7231
5 56.9720 - .6093 percent water	33 1.9232 percent solids-not-fat - 4.1794
6 .9067 percent solids-not-fat - 4.0269	34 356.8138 specific gravity - 354.7586
7 169.6749 specific gravity - 170.8103	
Percent protein =	Percent solids-not-fat =
8 .4059 percent fat + 1.9646	35 .3924 percent fat + 7.6008
9 5.5647 - .3696 percent lactose	36 .8193 percent protein + 6.2574
10 6.4352 percent ash - .8352	37 .5530 percent lactose + 6.6599
11 .3173 percent total solids - .6074	38 6.3914 percent ash + 4.7721
12 31.1226 - .3173 percent water	39 .3634 percent total solids + 4.3329
13 .7076 percent solids-not-fat - 2.8435	40 40.6729 - .3634 percent water
14 127.0350 specific gravity - 127.4449	41 165.7453 specific gravity - 161.8525
Percent lactose =	Percent water =
15 4.9837 - .0285 percent fat	42 92.4108 - 1.3954 percent fat
16 5.5551 - .1852 percent protein	43 93.5333 - 1.9439 percent protein
17 5.4595 - .8419 percent ash	44 88.2645 - .4239 percent lactose
18 .0347 percent total solids + 4.3783	45 96.2769 - 14.0739 percent ash
19 7.8483 - .0347 percent water	46 104.1794 - 1.9232 percent solids-not-fat
20 .2393 percent solids-not-fat + 2.6206	47 454.7876 - 356.8419 specific gravity
21 67.6512 specific gravity - 65.0199	
Percent ash =	Specific gravity =
22 .0262 percent fat + .5991	48 .0009 percent fat + 1.0289
23 .0602 percent protein + .4887	49 .0017 percent protein + 1.0265
24 .7919 - .0157 percent lactose	50 .0018 percent lactose + 1.0242
25 .0215 percent total solids + .4190	51 .0181 percent ash + 1.0199
26 2.5690 - .0215 percent water	52 .0008 percent total solids + 1.0219
27 .0516 percent solids-not-fat + .2336	53 1.1019 - .0008 percent water
28 12.3217 specific gravity - 12.0115	54 .0020 percent solids-not-fat + 1.0142

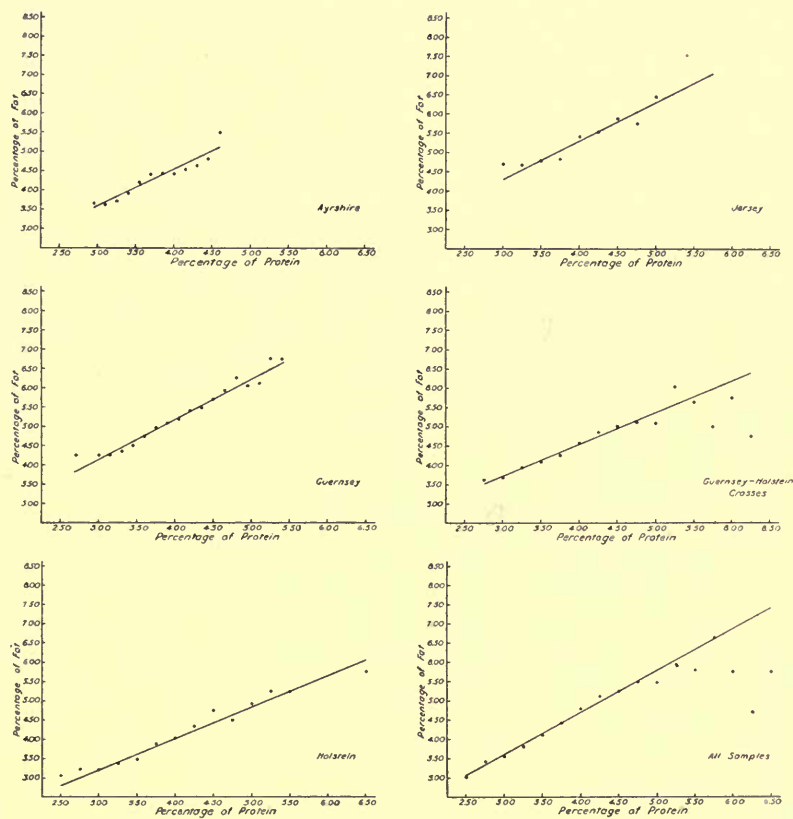


FIG. 2.—REGRESSIONS OF BUTTERFAT ON PROTEIN. EQUATIONS NO. 1.

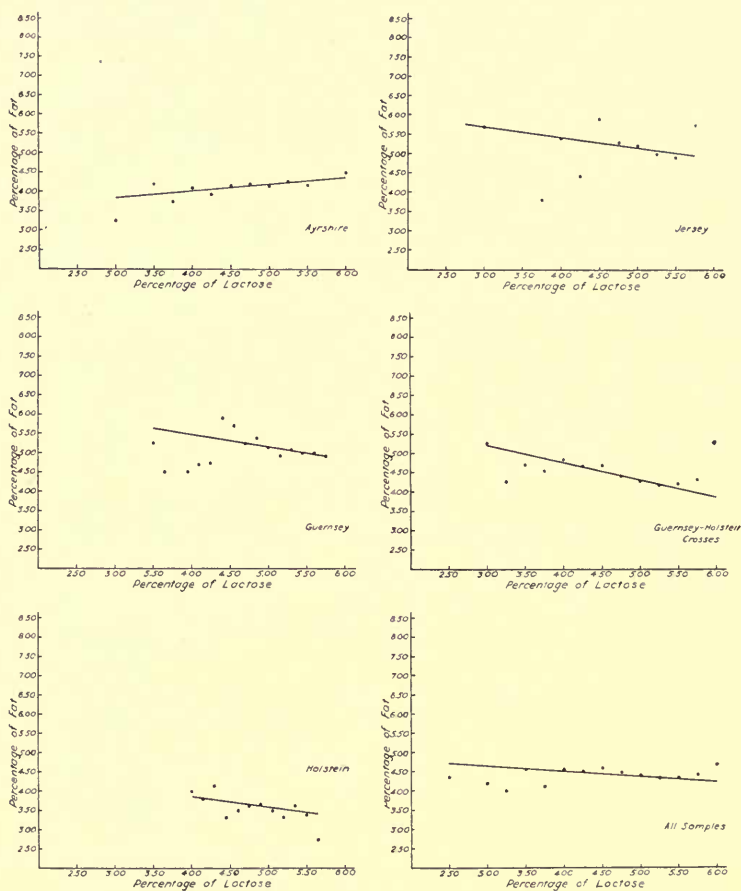


FIG. 3.—REGRESSIONS OF BUTTERFAT ON LACTOSE. EQUATIONS No. 2.

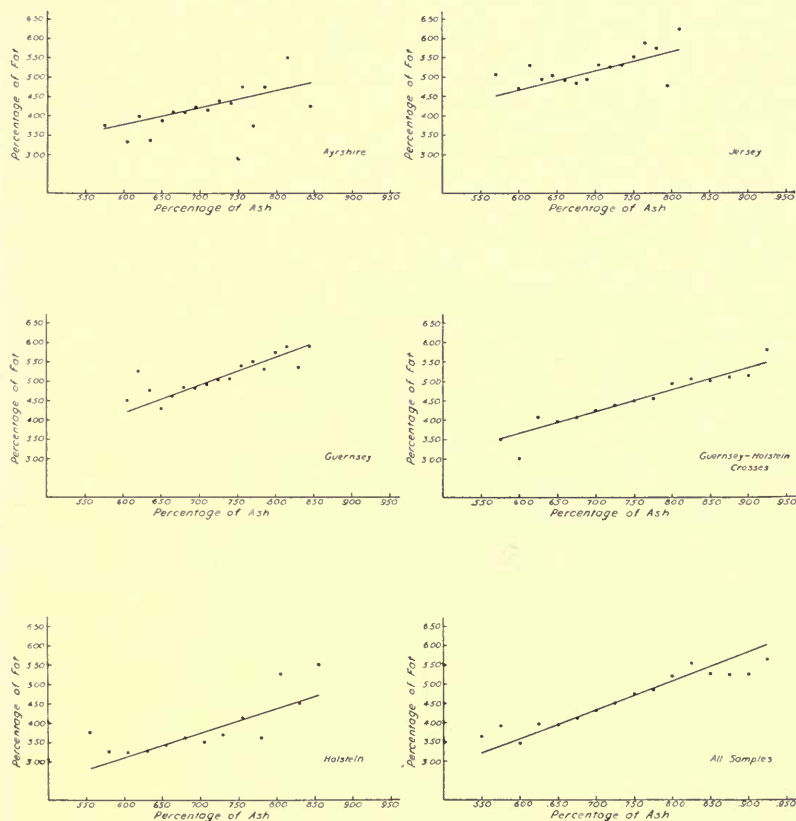


FIG. 4.—REGRESSIONS OF BUTTERFAT ON ASH. EQUATIONS NO. 3.

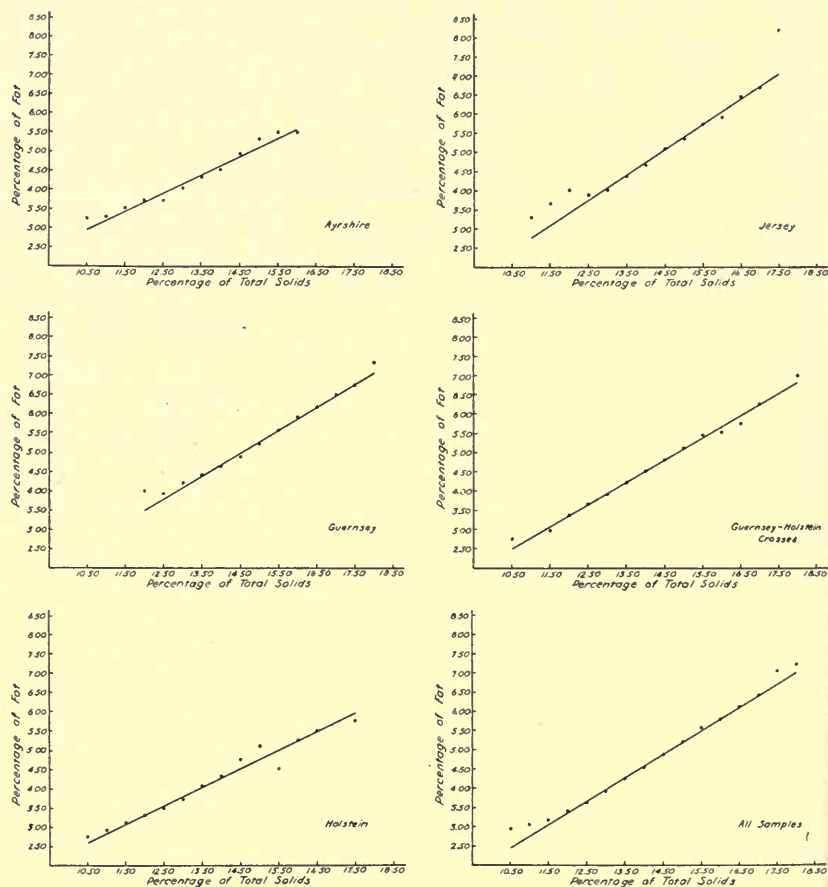


FIG. 5.—REGRESSIONS OF BUTTERFAT ON TOTAL SOLIDS. EQUATIONS No. 4.

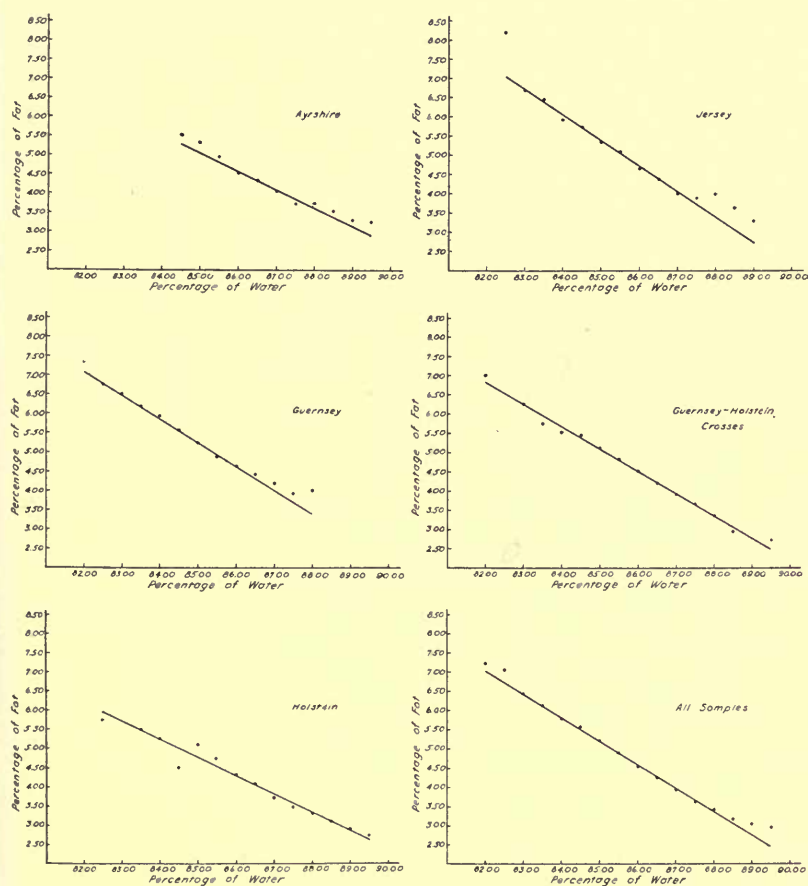


FIG. 6.—REGRESSIONS OF BUTTERFAT ON WATER. EQUATIONS NO. 5.

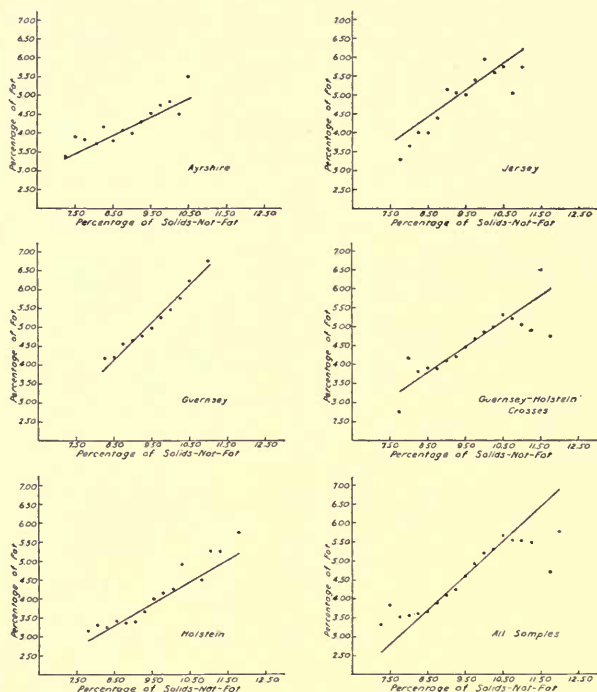


FIG. 7.—REGRESSIONS OF BUTTERFAT ON SOLIDS-NOT-FAT.
EQUATIONS No. 6.

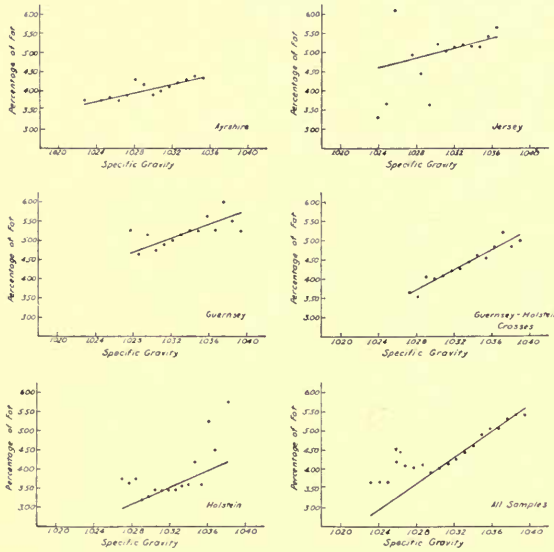


FIG. 8.—REGRESSIONS OF BUTTERFAT ON SPECIFIC GRAVITY.
EQUATIONS NO. 7.

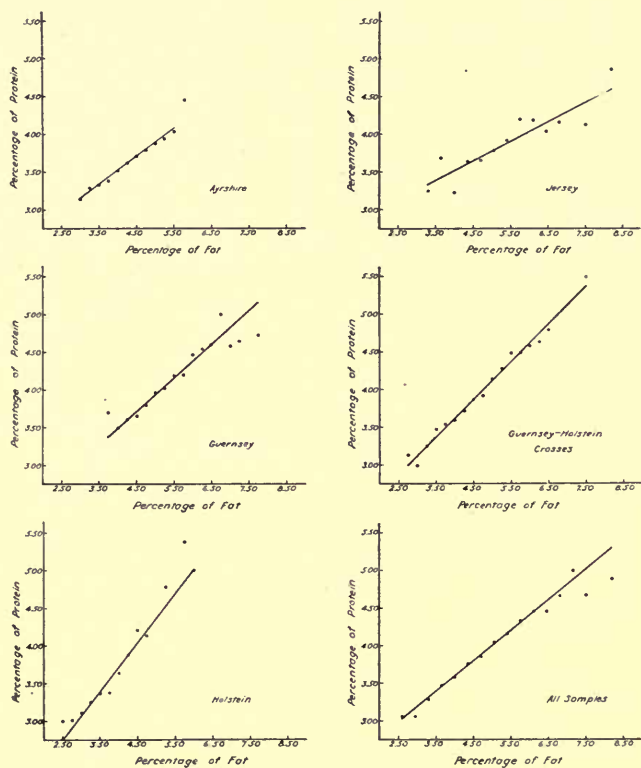


FIG. 9.—REGRESSIONS OF PROTEIN ON BUTTERFAT.
EQUATIONS No. 8.

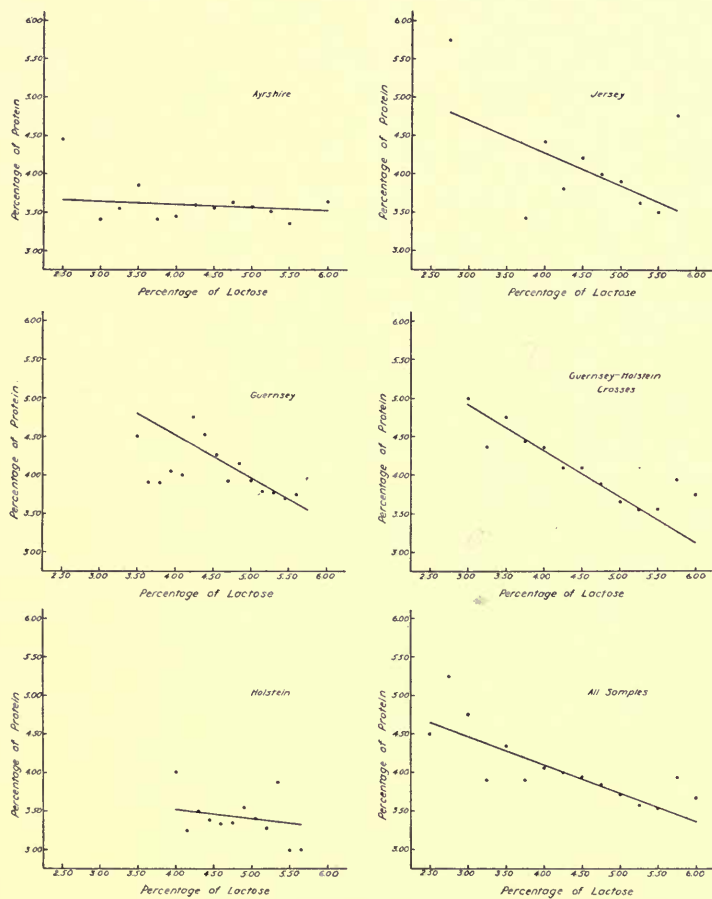


FIG. 10.—REGRESSIONS OF PROTEIN ON LACTOSE. EQUATIONS NO. 9.

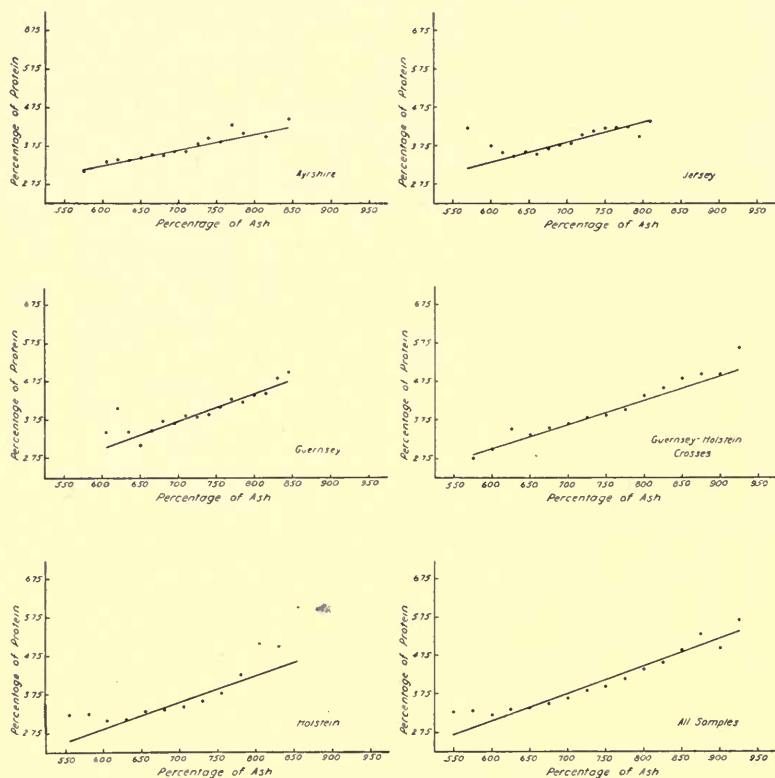


FIG. 11.—REGRESSIONS OF PROTEIN ON ASH. EQUATIONS NO. 10.

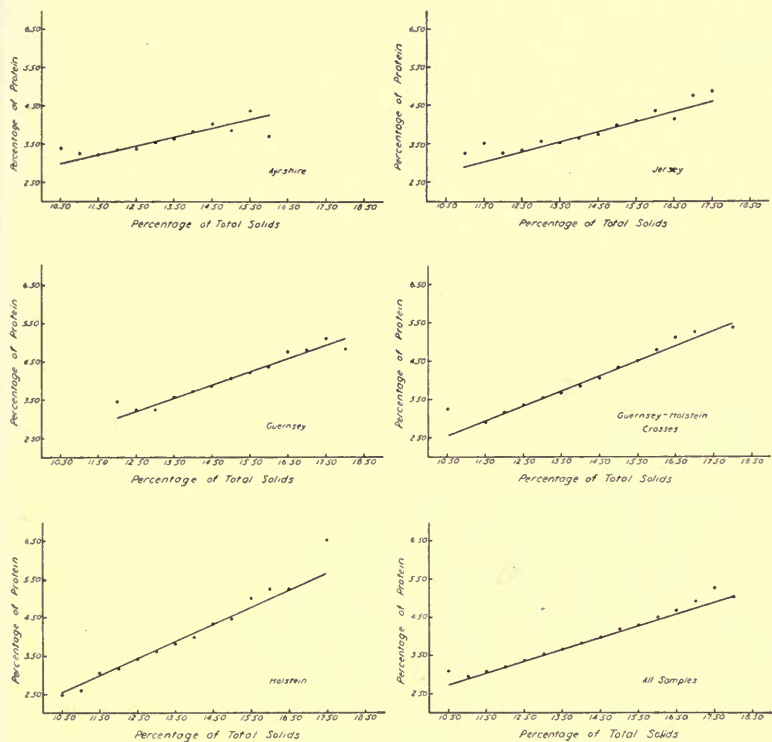


FIG. 12.—REGRESSIONS OF PROTEIN ON TOTAL SOLIDS.
EQUATIONS NO. 11.

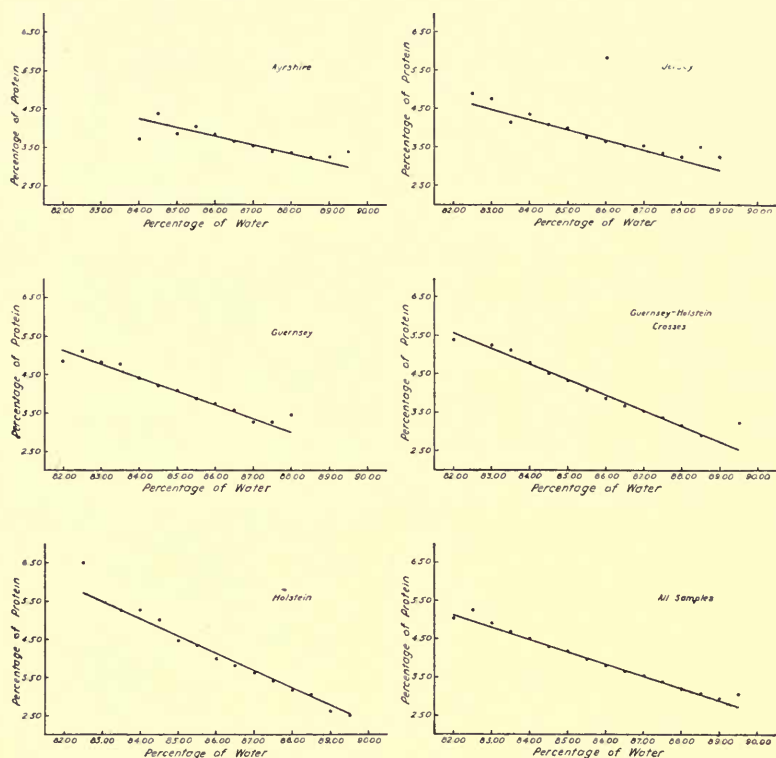


FIG. 13.—REGRESSIONS OF PROTEIN ON WATER. EQUATIONS No. 12.

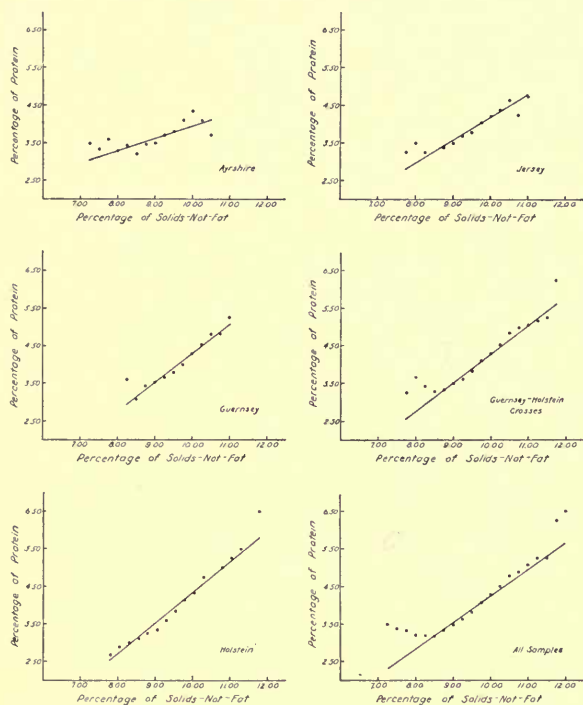


FIG. 14.—REGRESSIONS OF PROTEIN ON SOLIDS-NOT-FAT.
EQUATIONS NO. 13.

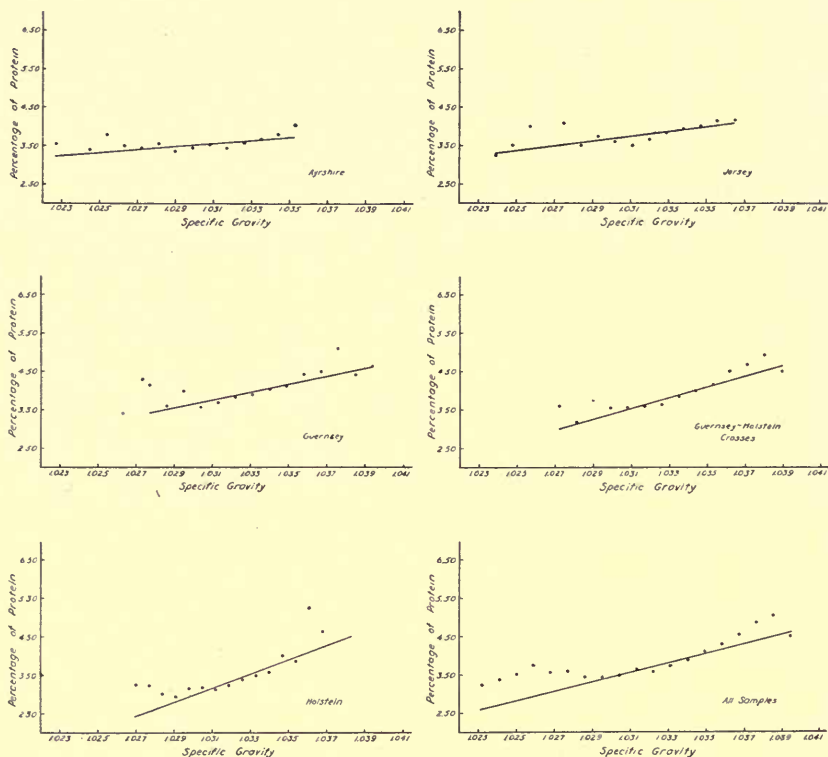


FIG. 15.—REGRESSIONS OF PROTEIN ON SPECIFIC GRAVITY. EQUATIONS NO. 14.

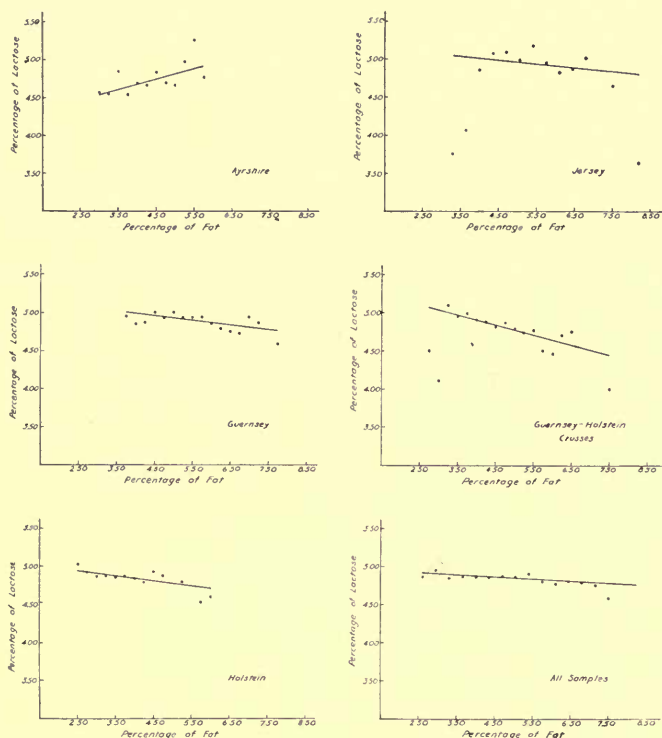


FIG. 16.—REGRESSIONS OF LACTOSE ON BUTTERFAT.
EQUATIONS NO. 15.

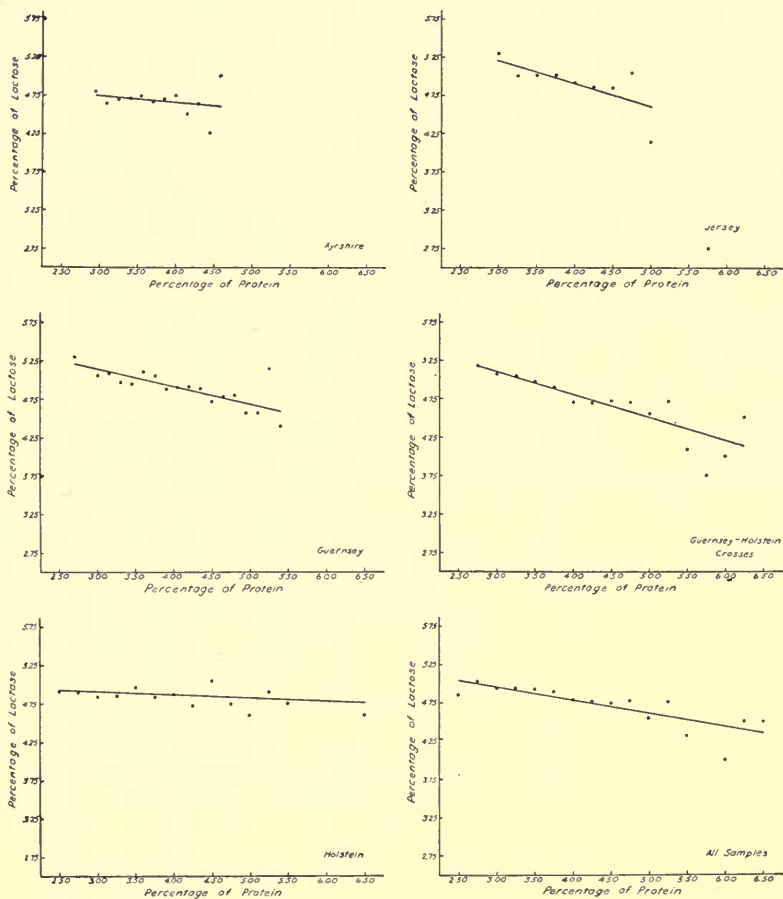


FIG. 17.—REGRESSIONS OF LACTOSE ON PROTEIN. EQUATIONS No. 16.

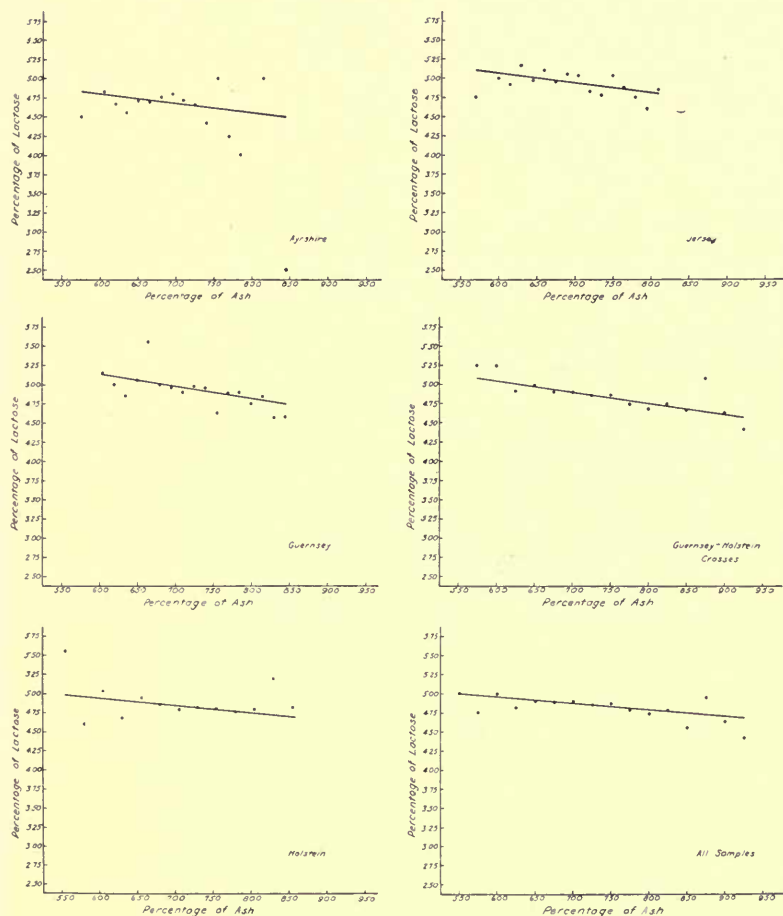


FIG. 18.—REGRESSIONS OF LACTOSE ON ASH. EQUATIONS No. 17.

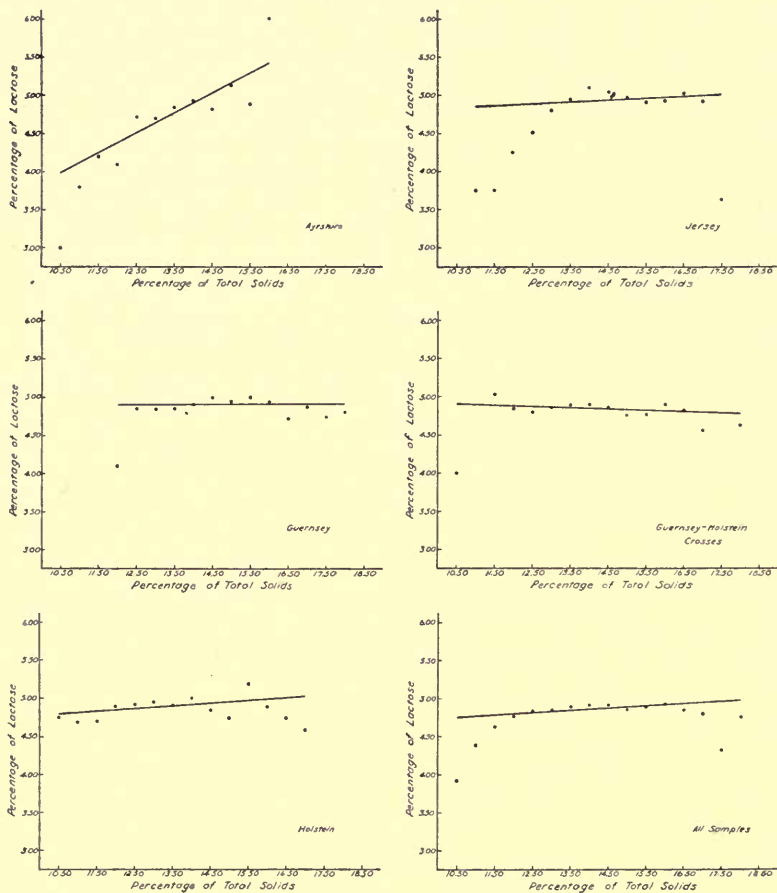


FIG. 19.—REGRESSIONS OF LACTOSE ON TOTAL SOLIDS. EQUATIONS No. 18.

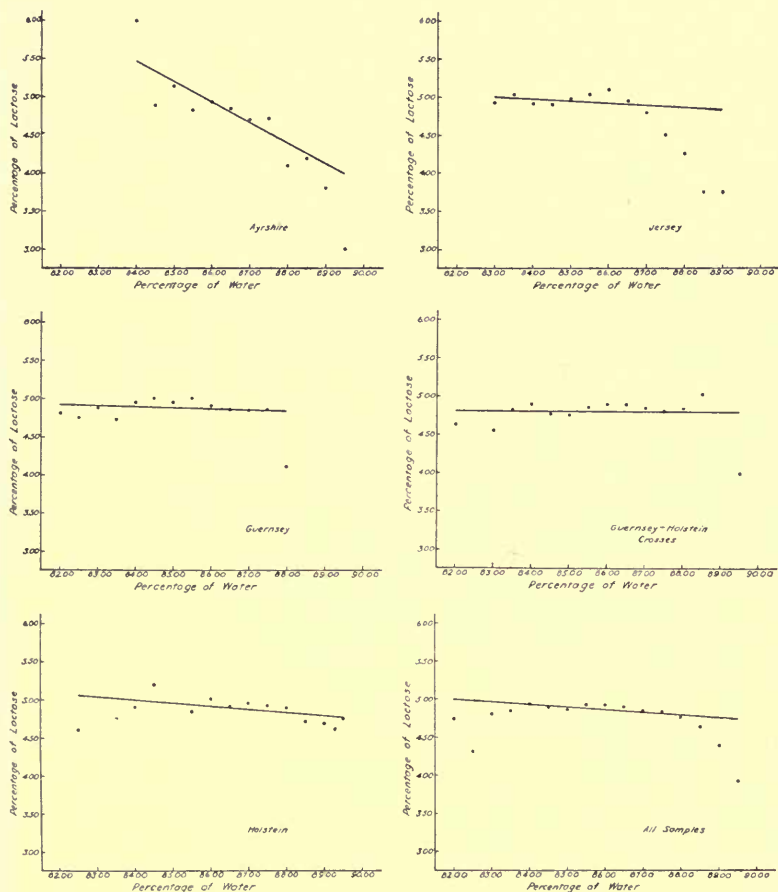


FIG. 20.—REGRESSIONS OF LACTOSE ON WATER. EQUATIONS NO. 19.

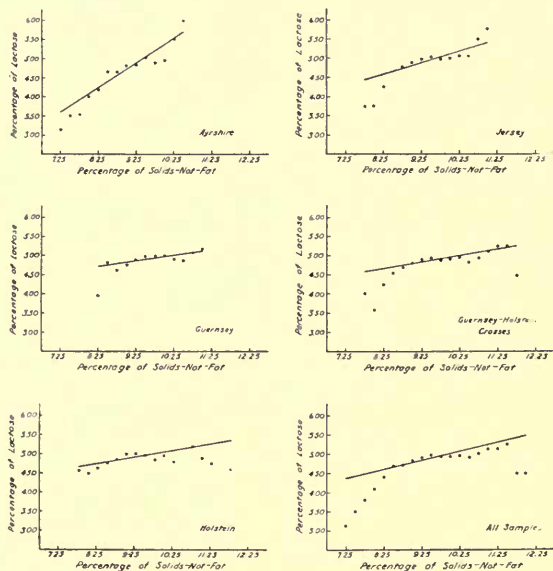


FIG. 21.—REGRESSIONS OF LACTOSE ON SOLIDS-NOT-FAT.
EQUATIONS NO. 20.

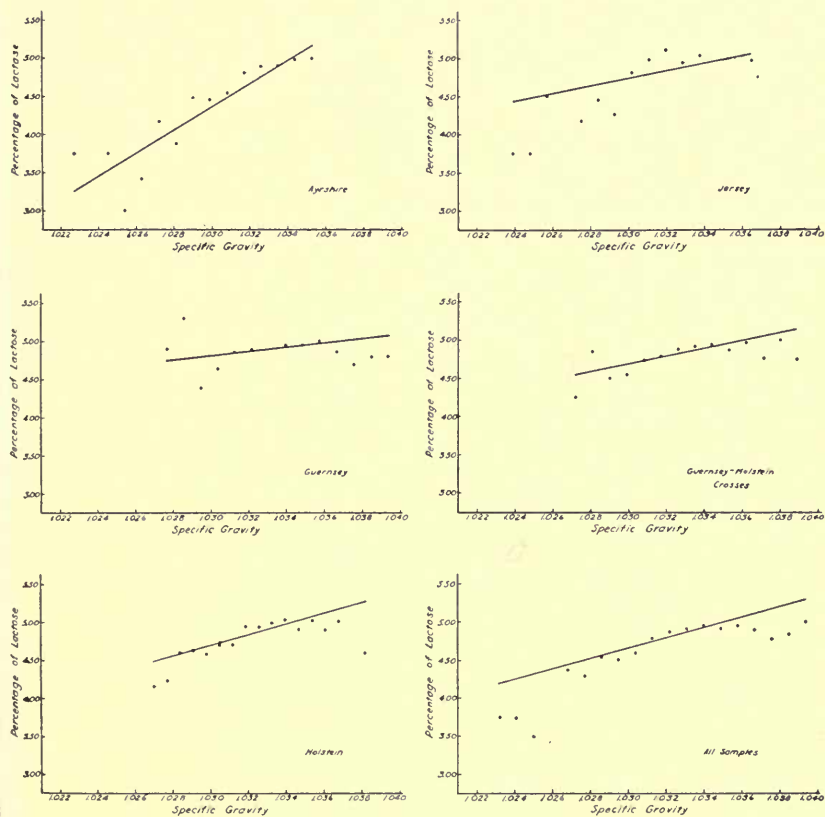


FIG. 22.—REGRESSIONS OF LACTOSE ON SPECIFIC GRAVITY. EQUATIONS NO. 21.

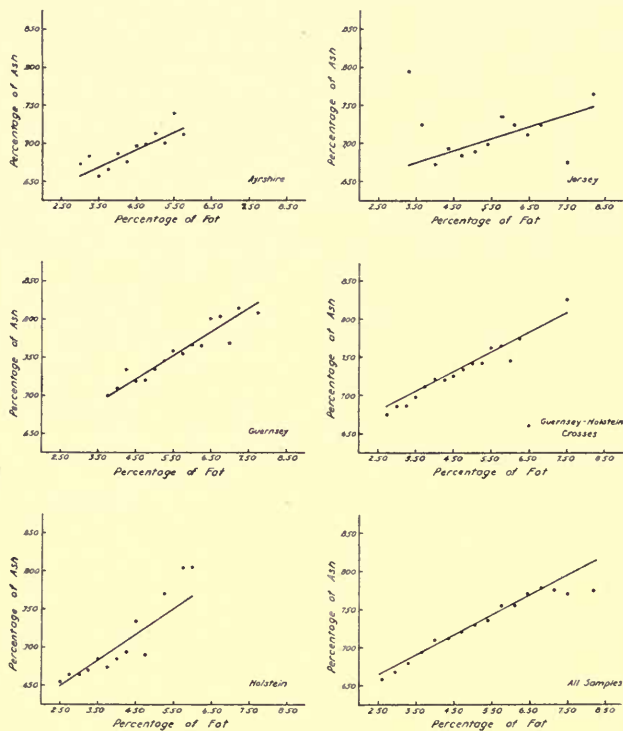


FIG. 23.—REGRESSIONS OF ASH ON BUTTERFAT.
EQUATIONS No. 22.

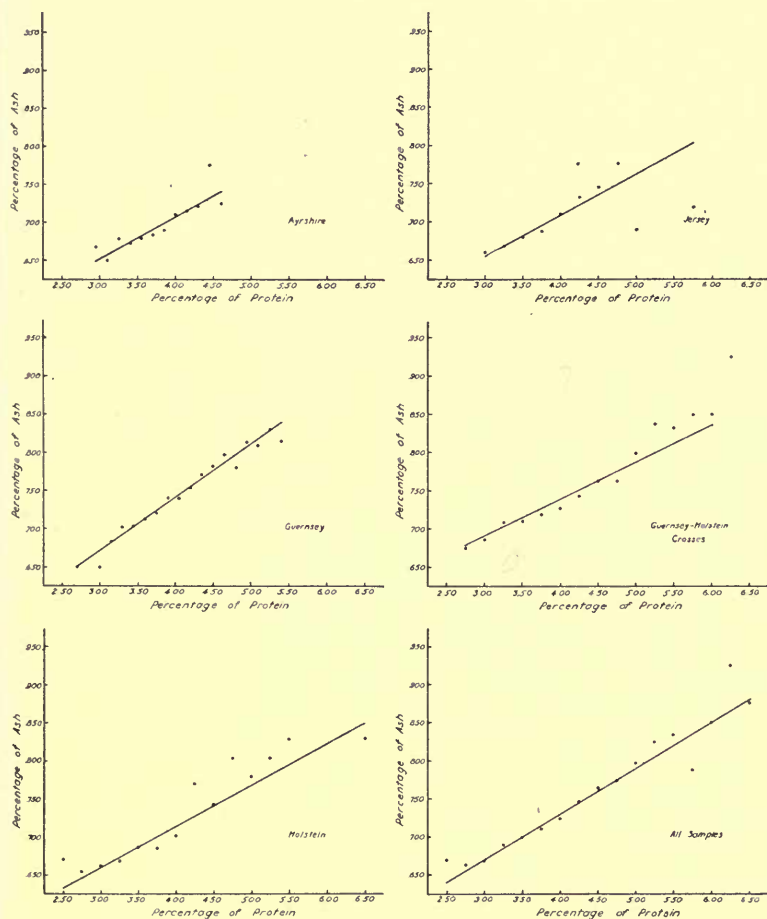


FIG. 24.—REGRESSIONS OF ASH ON PROTEIN. EQUATIONS NO. 23.

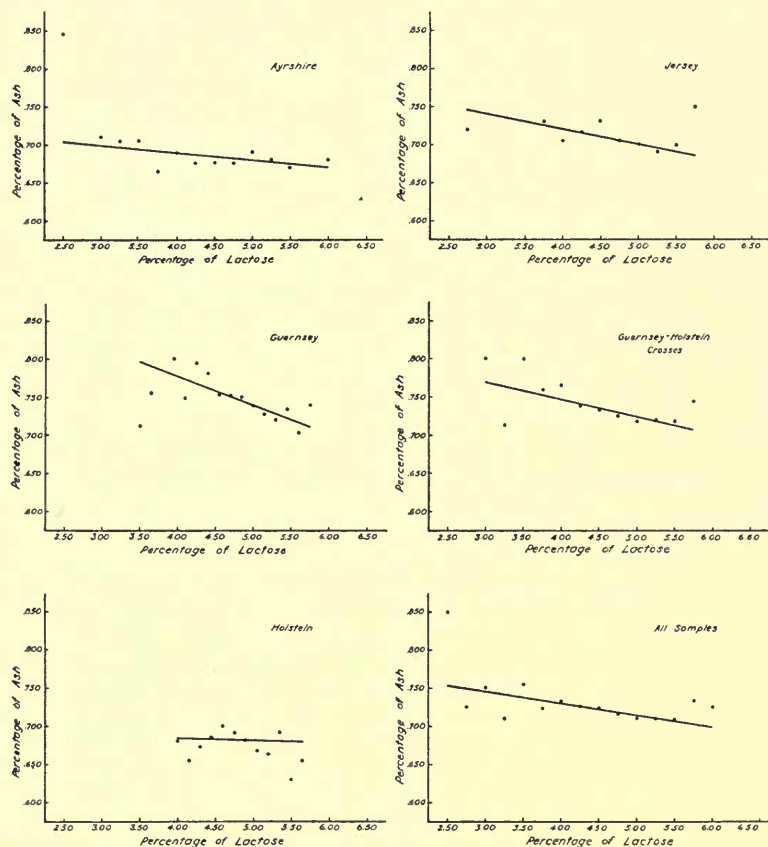


FIG. 25.—REGRESSIONS OF ASH ON LACTOSE. EQUATIONS No. 24.

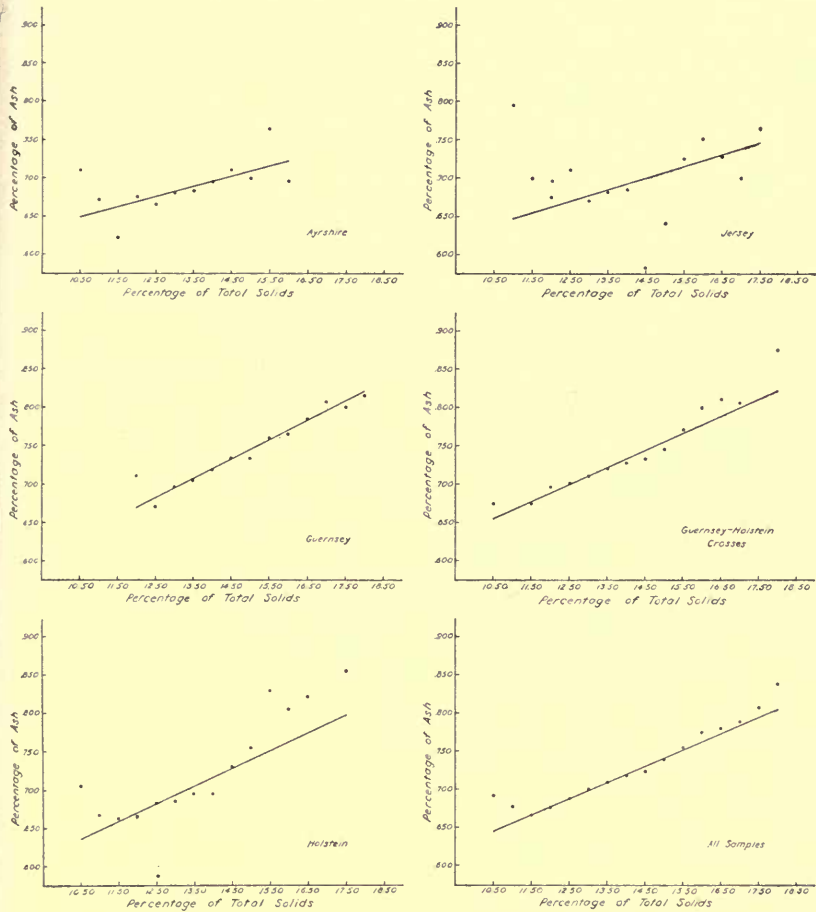


FIG. 26.—REGRESSIONS OF ASH ON TOTAL SOLIDS. EQUATIONS No. 25.

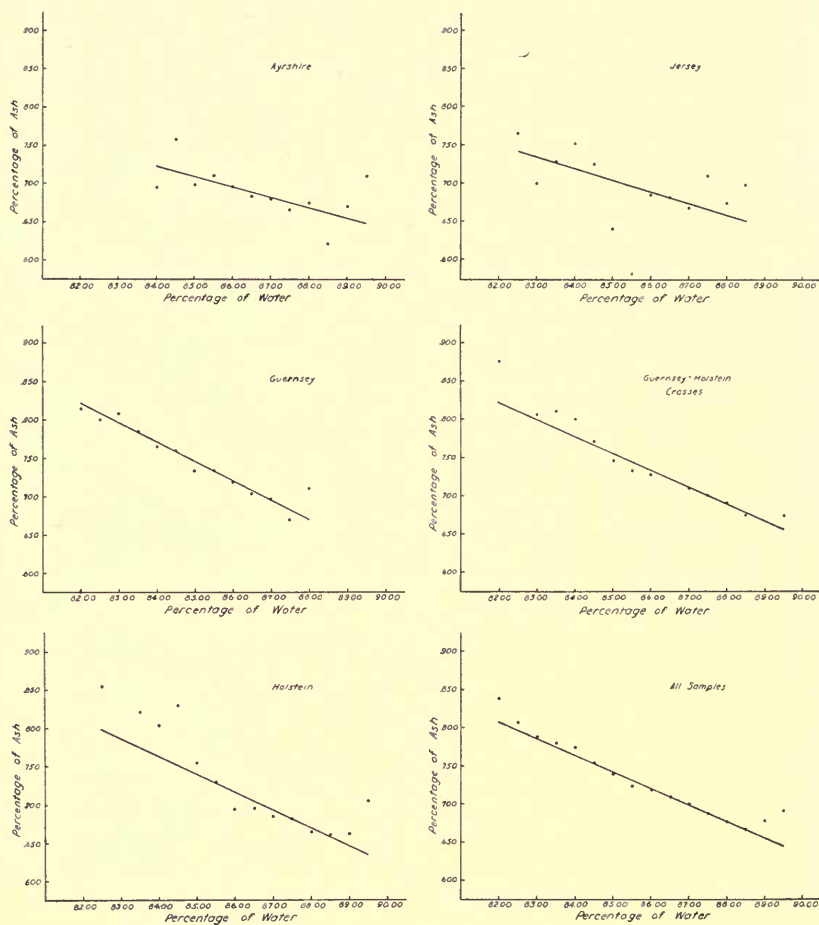


FIG. 27.—REGRESSIONS OF ASH ON WATER. EQUATIONS No. 26.

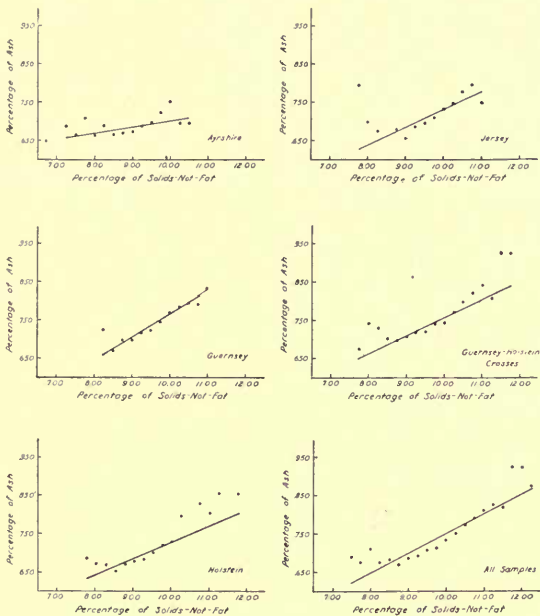


FIG. 28.—REGRESSIONS OF ASH ON SOLIDS-NOT-FAT.
EQUATIONS NO. 27.

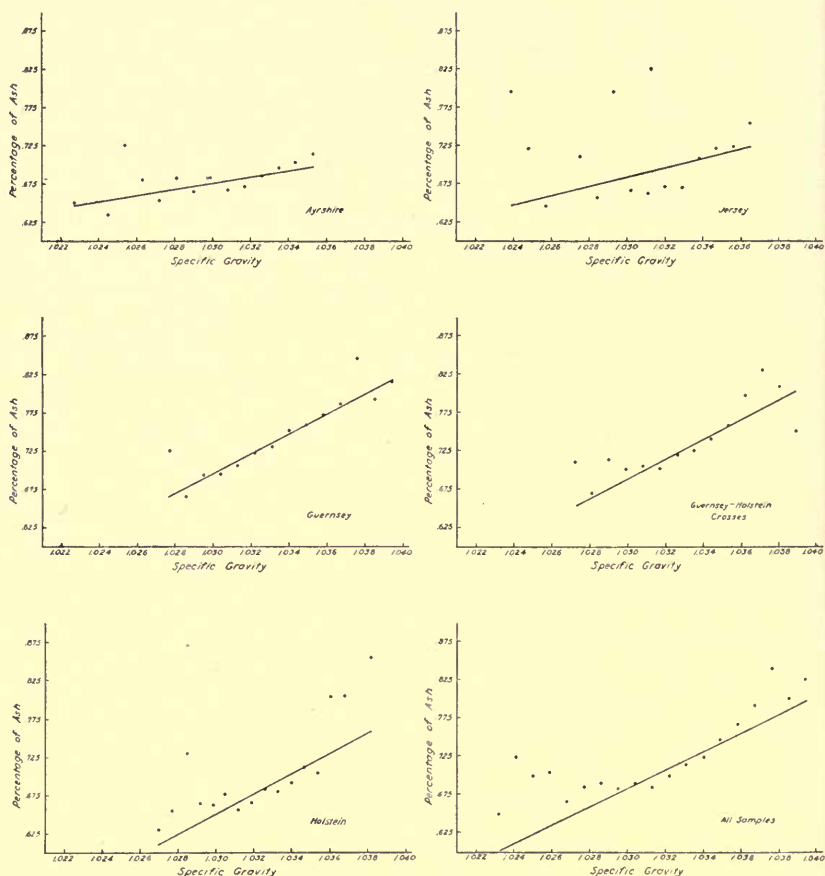


FIG. 29.—REGRESSIONS OF ASH ON SPECIFIC GRAVITY. EQUATIONS No. 28.

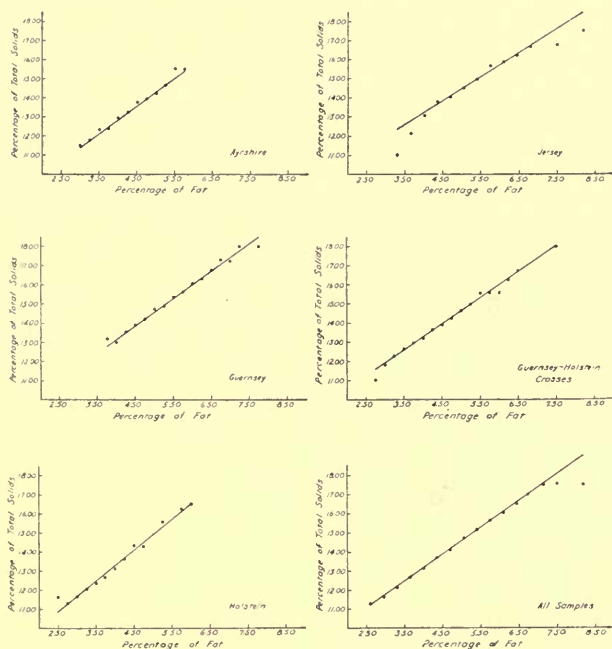


FIG. 30.—REGRESSIONS OF TOTAL SOLIDS ON BUTTERFAT.
EQUATIONS NO. 29.

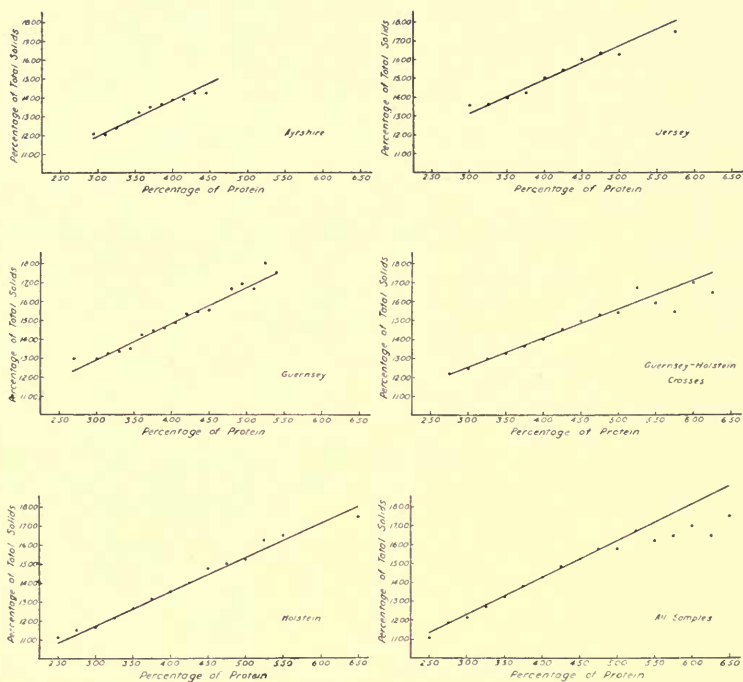


FIG. 31.—REGRESSIONS OF TOTAL SOLIDS ON PROTEIN. EQUATIONS No. 30.

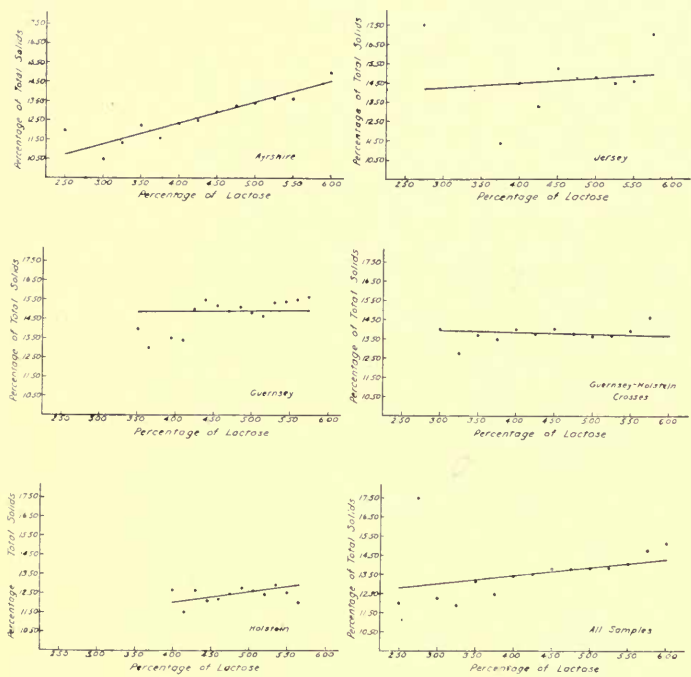


FIG. 32.—REGRESSIONS OF TOTAL SOLIDS ON LACTOSE. EQUATIONS No. 31.

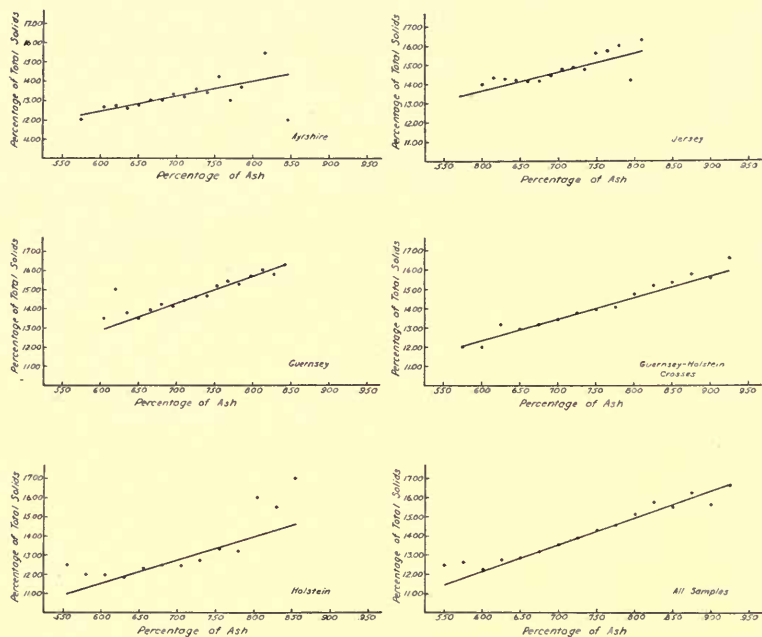


FIG. 33.—REGRESSIONS OF TOTAL SOLIDS ON ASH. EQUATIONS No. 32.

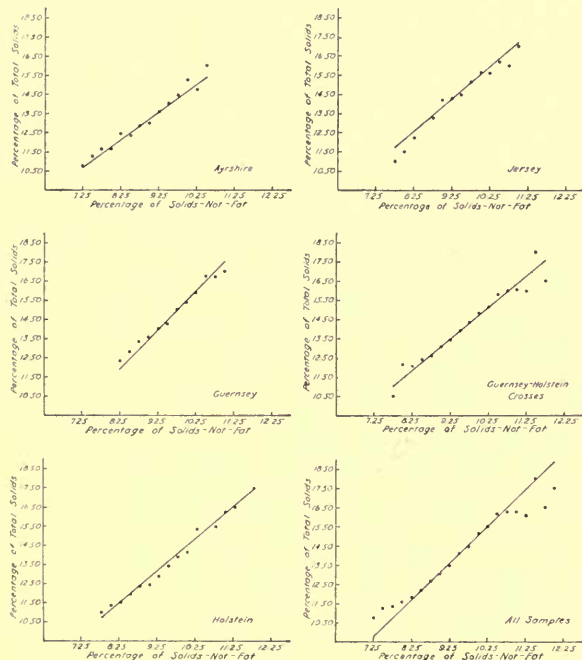


FIG. 34.—REGRESSIONS OF TOTAL SOLIDS ON SOLIDS-NOT-FAT.
EQUATIONS NO. 33.

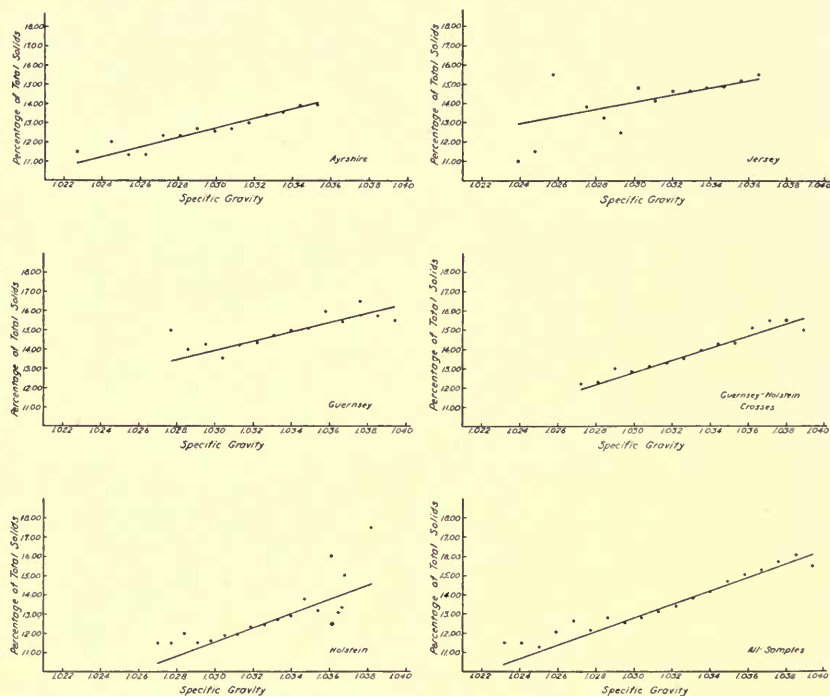


FIG. 35.—REGRESSIONS OF TOTAL SOLIDS ON SPECIFIC GRAVITY, EQUATIONS No. 34.

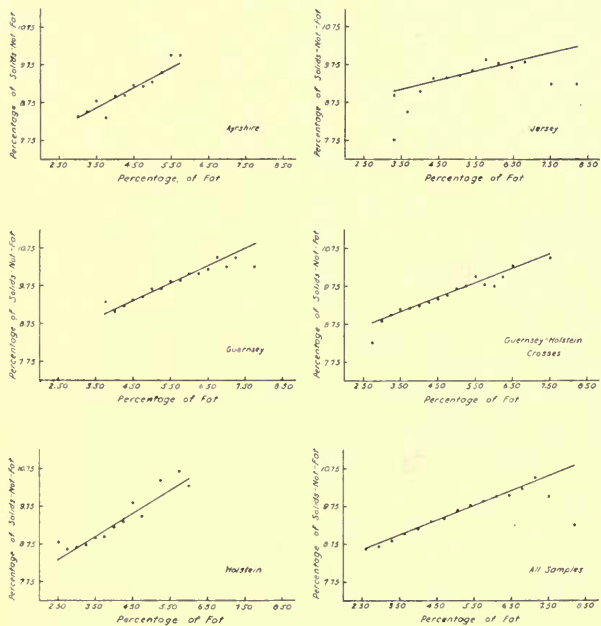


FIG. 36.—REGRESSIONS OF SOLIDS-NOT-FAT ON BUTTERFAT. EQUATIONS No. 35.

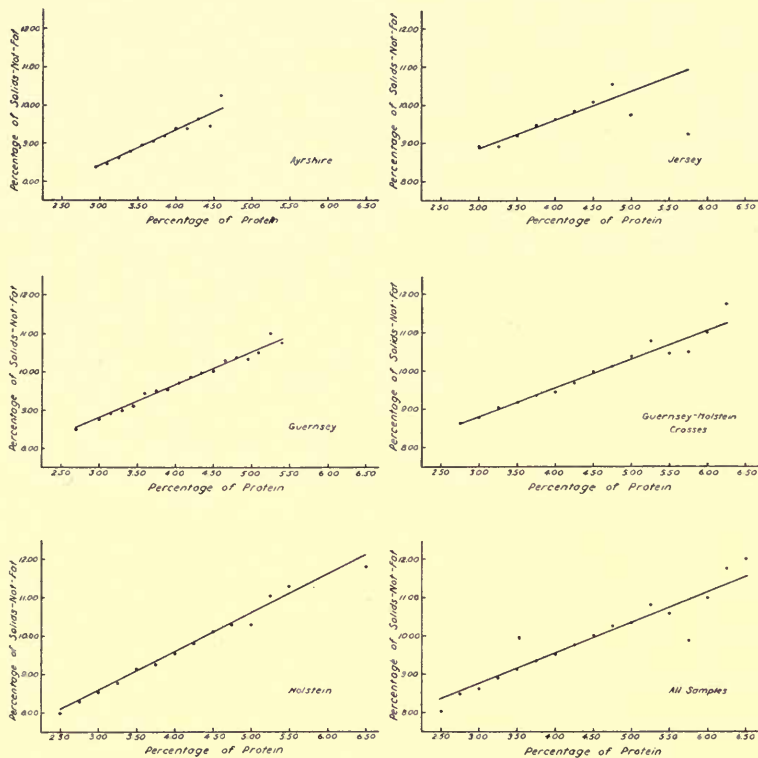


FIG. 37.—REGRESSIONS OF SOLIDS-NOT-FAT ON PROTEIN. EQUATIONS NO. 36.

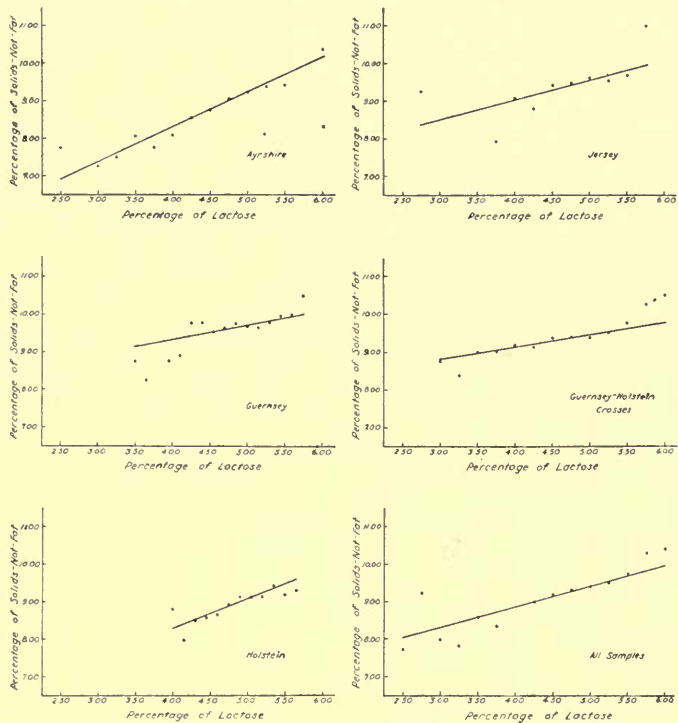


FIG. 38.—REGRESSIONS OF SOLIDS-NOT-FAT ON LACTOSE.
EQUATIONS No. 37.

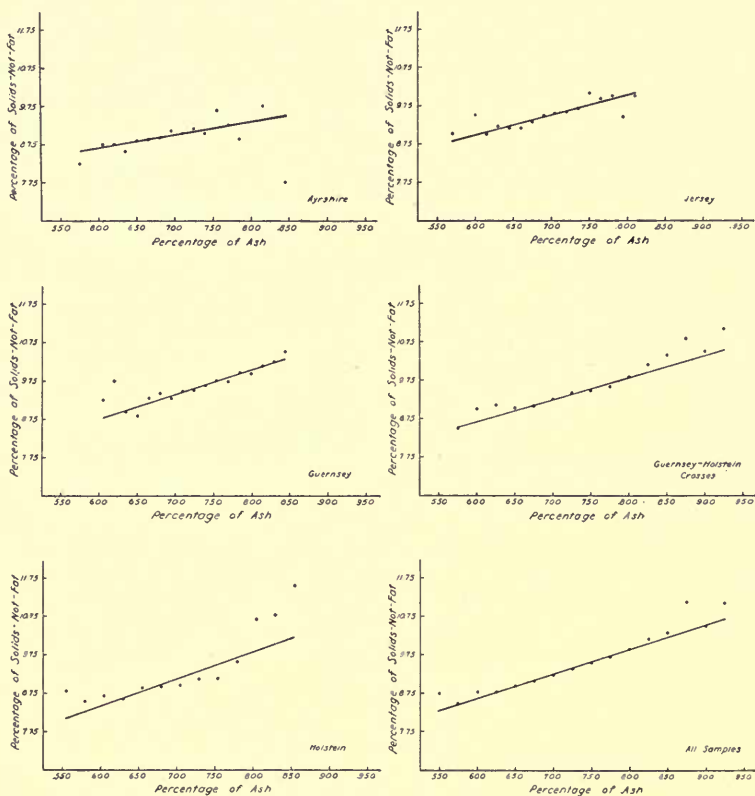


FIG. 39.—REGRESSIONS OF SOLIDS-NOT-FAT ON ASH. EQUATIONS No. 38.

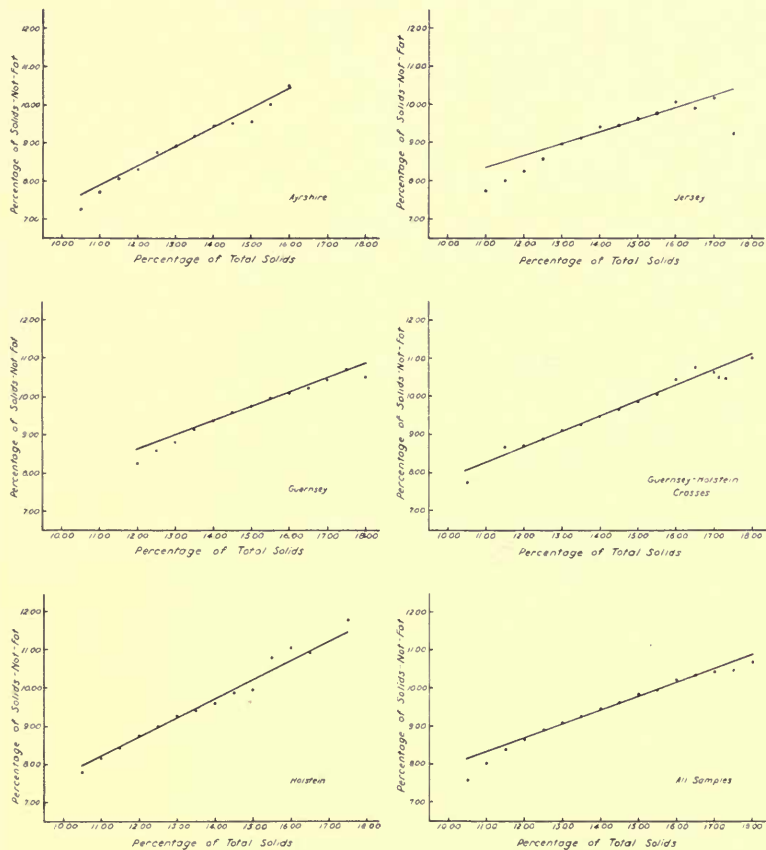


FIG. 40.—REGRESSIONS OF SOLIDS-NOT-FAT ON TOTAL SOLIDS.
EQUATIONS NO. 39.

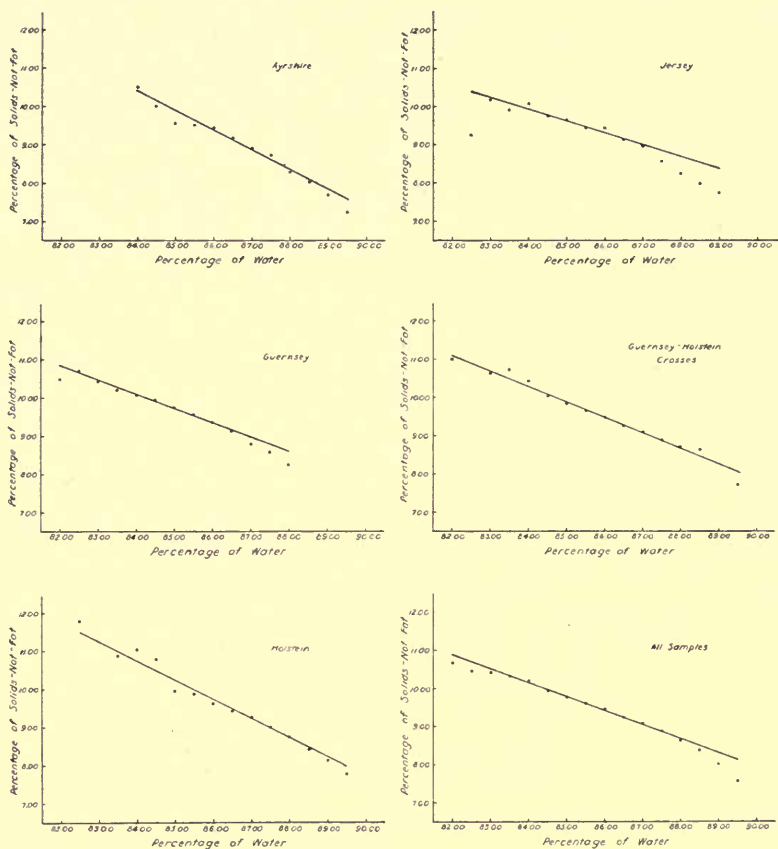


FIG. 41.—REGRESSIONS OF SOLIDS-NOT-FAT ON WATER. EQUATIONS No. 40.

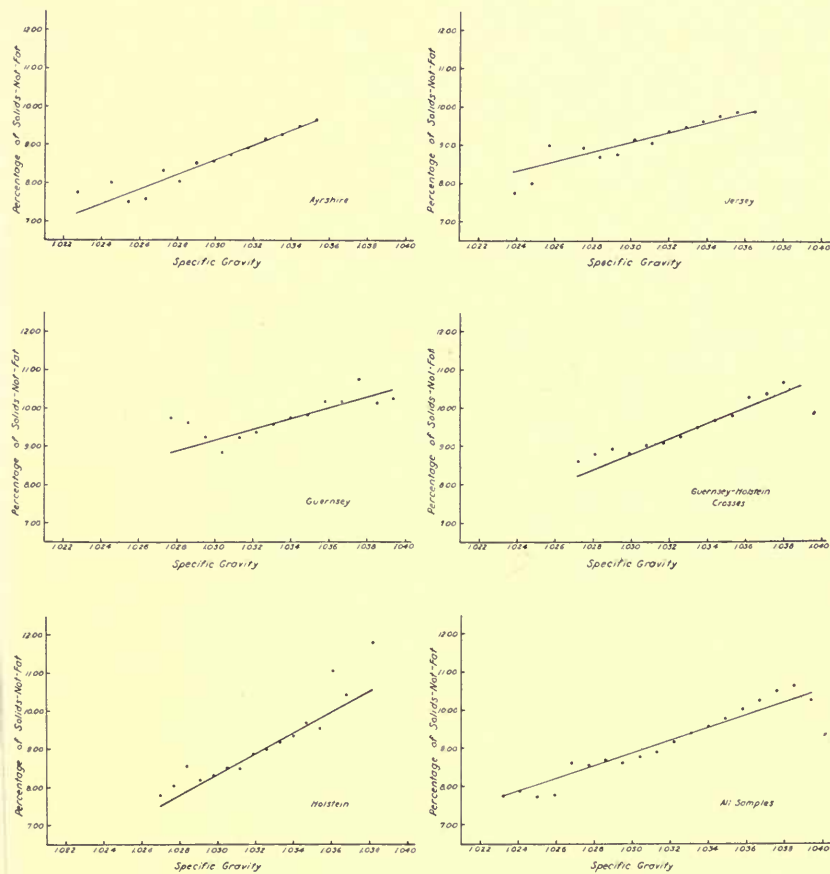


FIG. 42.—REGRESSIONS OF SOLIDS-NOT-FAT ON SPECIFIC GRAVITY.
EQUATIONS No. 41.

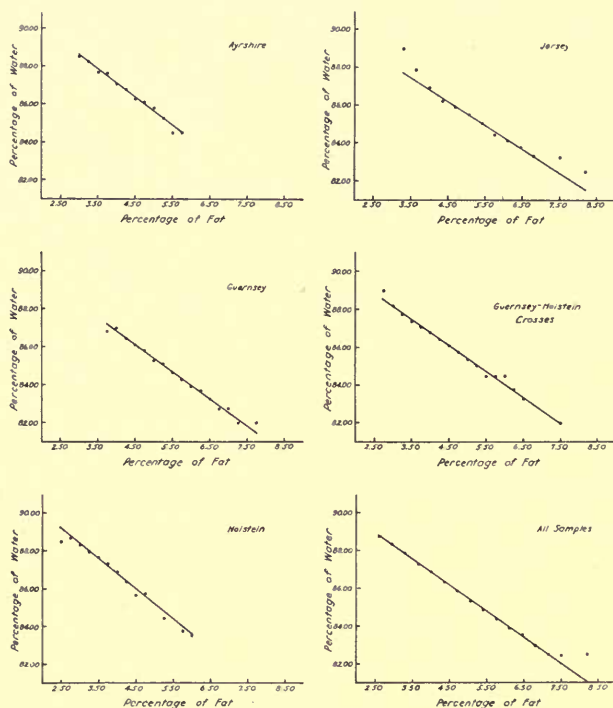


FIG. 43.—REGRESSIONS OF WATER ON BUTTERFAT.
EQUATIONS No. 42.

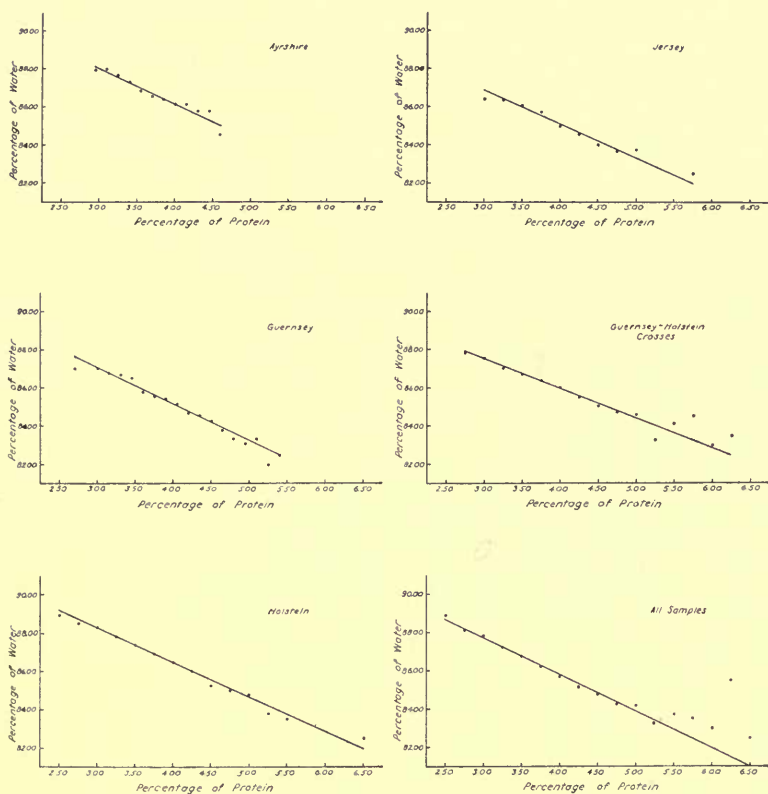


FIG. 44.—REGRESSIONS OF WATER ON PROTEIN. EQUATIONS No. 43.

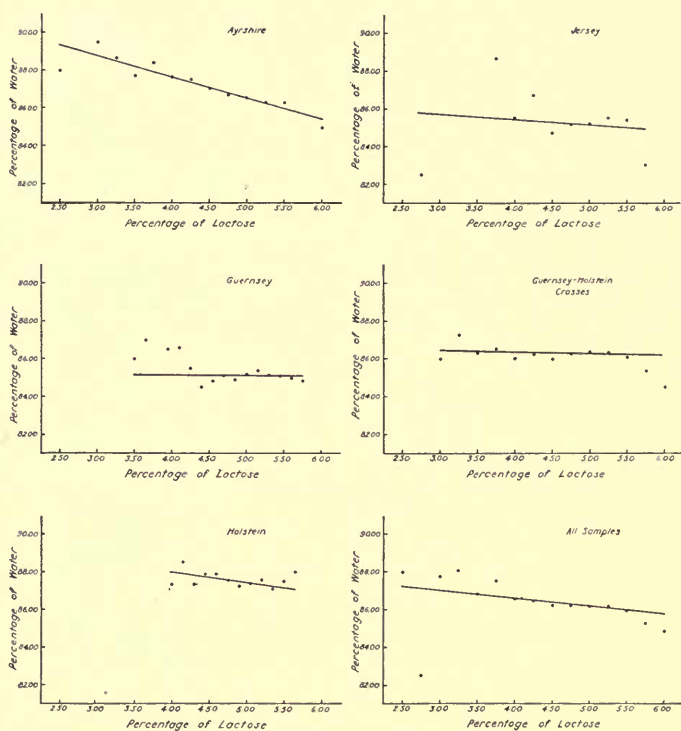


FIG. 45.—REGRESSIONS OF WATER ON LACTOSE. EQUATIONS No. 44.

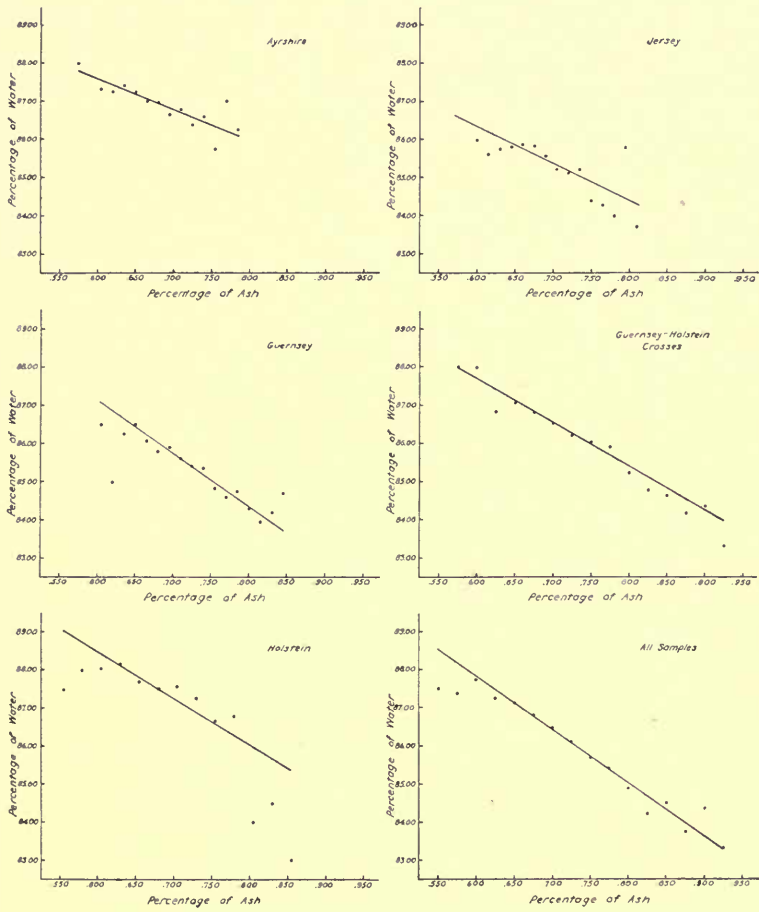


FIG. 46.—REGRESSIONS OF WATER ON ASH. EQUATIONS NO. 45.

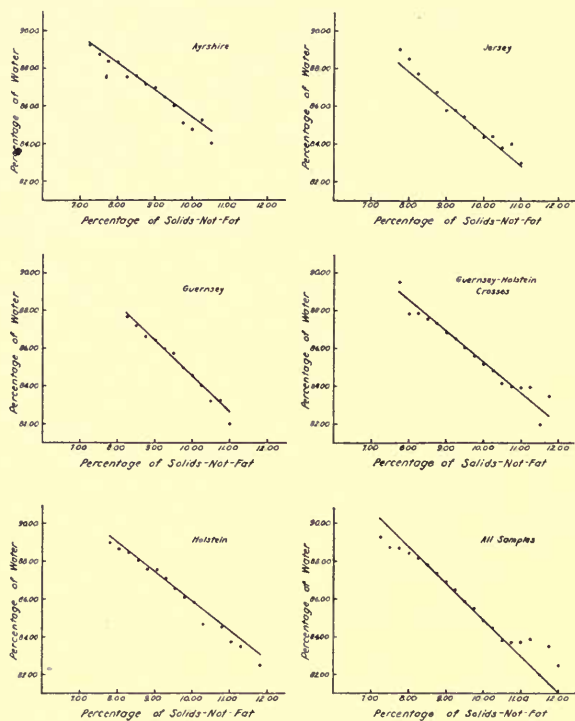


FIG. 47.—REGRESSIONS OF WATER ON SOLIDS-NOT-FAT.
EQUATIONS No. 46.

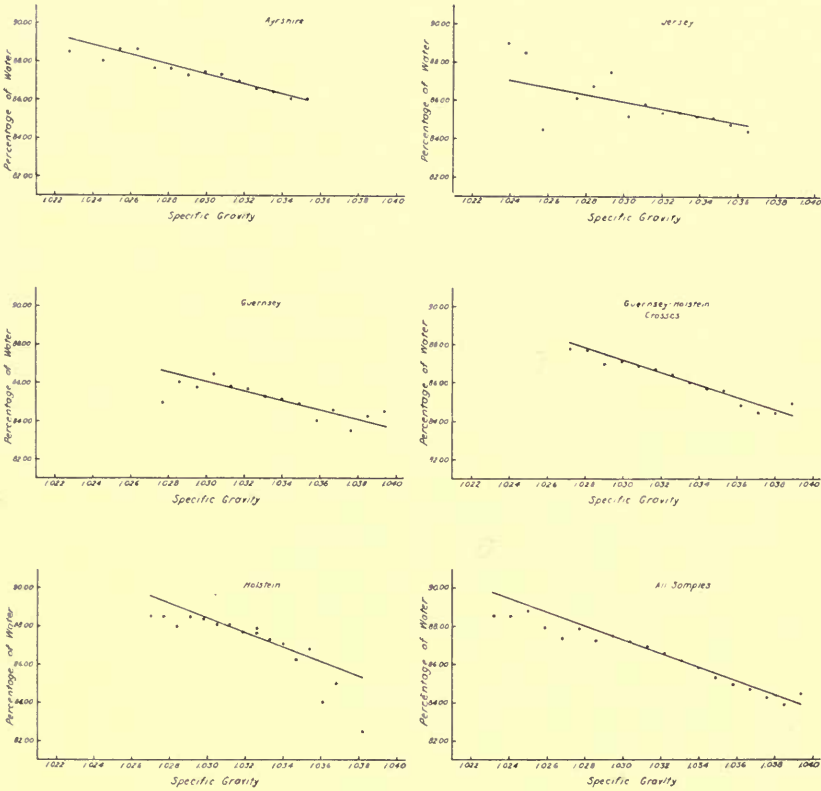


FIG. 48.—REGRESSIONS OF WATER ON SPECIFIC GRAVITY. EQUATIONS NO. 47.

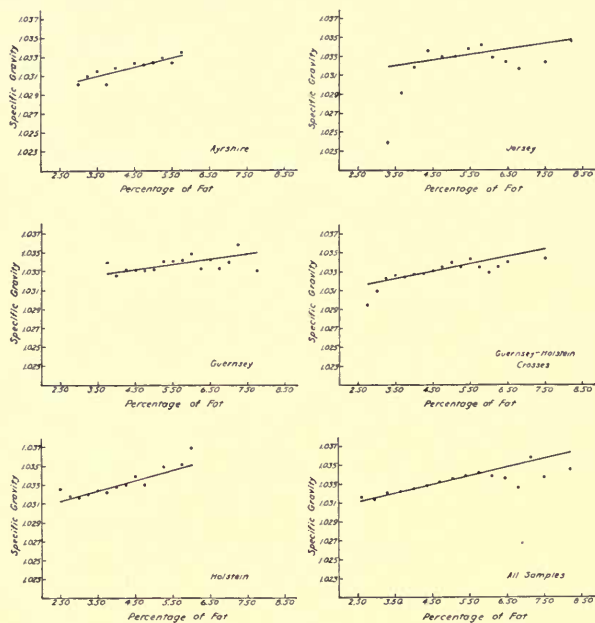


FIG. 49.—REGRESSIONS OF SPECIFIC GRAVITY ON BUTTERFAT.
EQUATIONS No. 48.

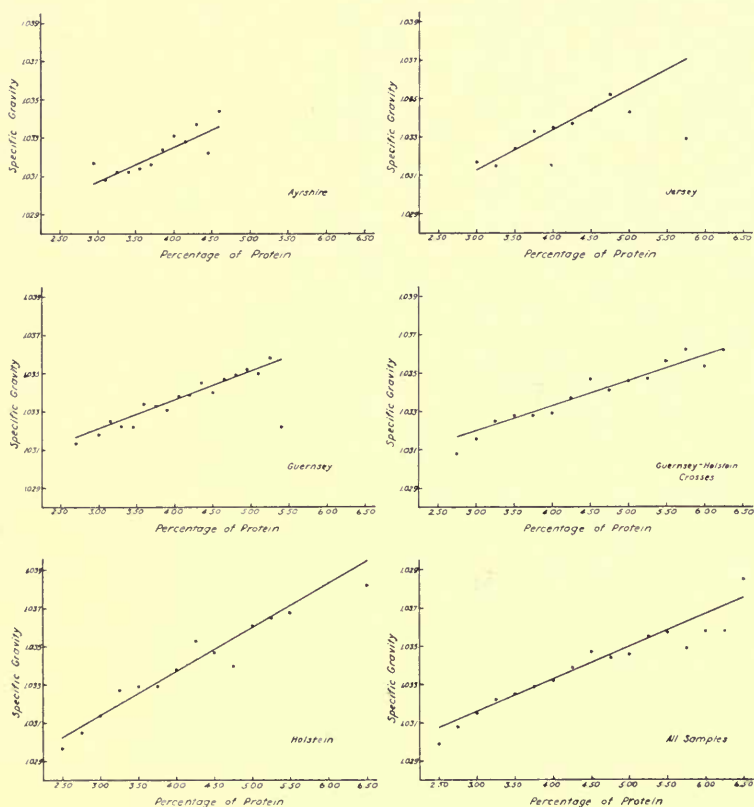


FIG. 50.—REGRESSIONS OF SPECIFIC GRAVITY ON PROTEIN. EQUATIONS NO. 49.

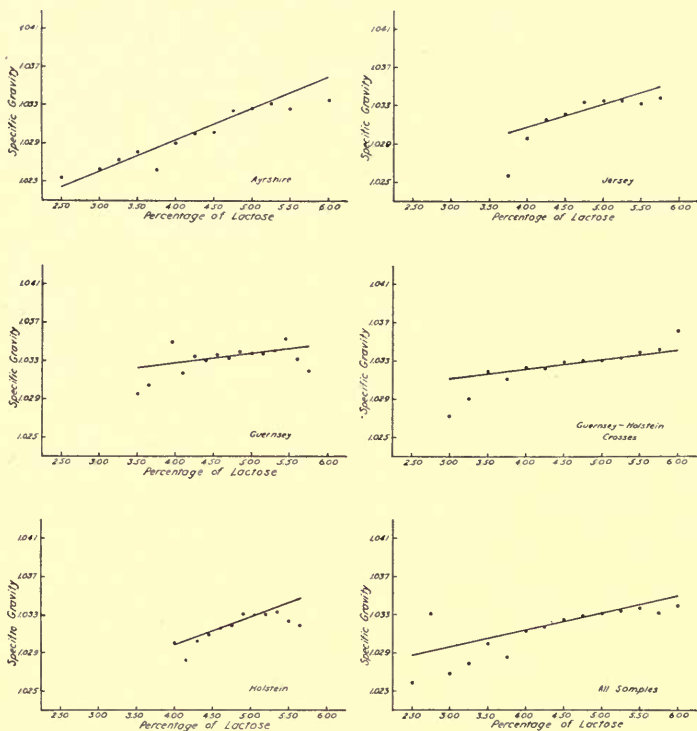


FIG. 51.—REGRESSIONS OF SPECIFIC GRAVITY ON LACTOSE.
EQUATIONS No. 50.

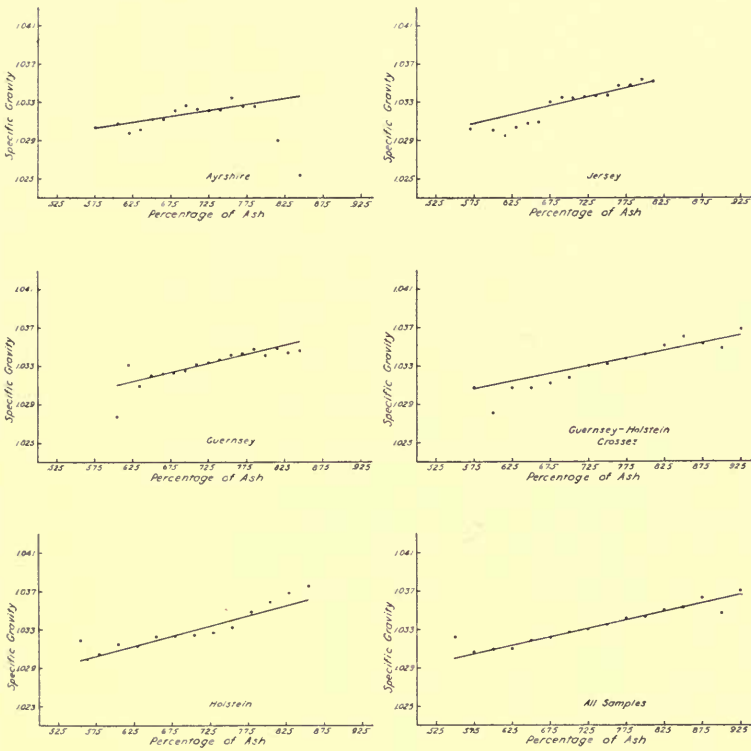


FIG. 52.—REGRESSIONS OF SPECIFIC GRAVITY ON ASH. EQUATIONS No. 51.

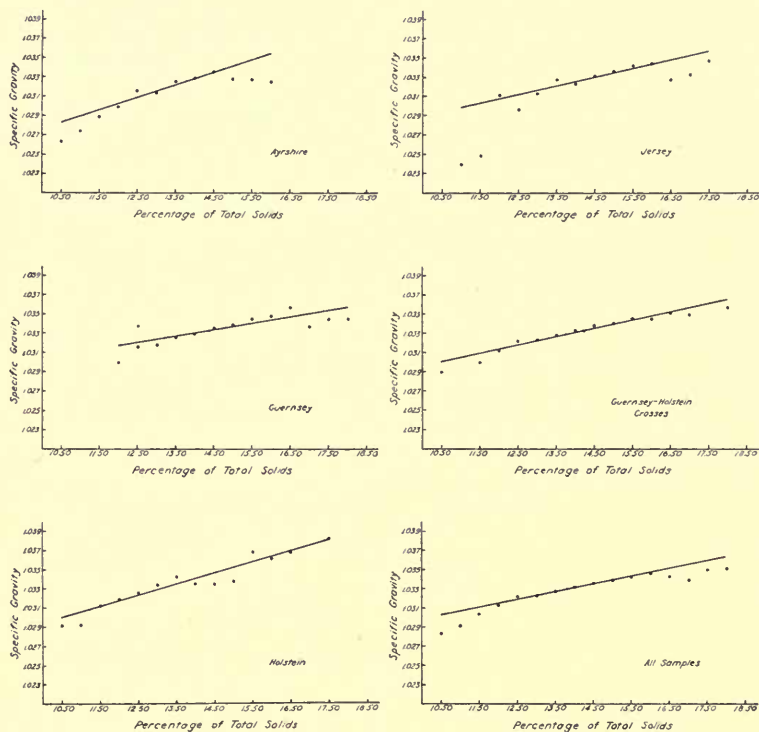


FIG. 53.—REGRESSIONS OF SPECIFIC GRAVITY ON TOTAL SOLIDS.
EQUATIONS No. 52.

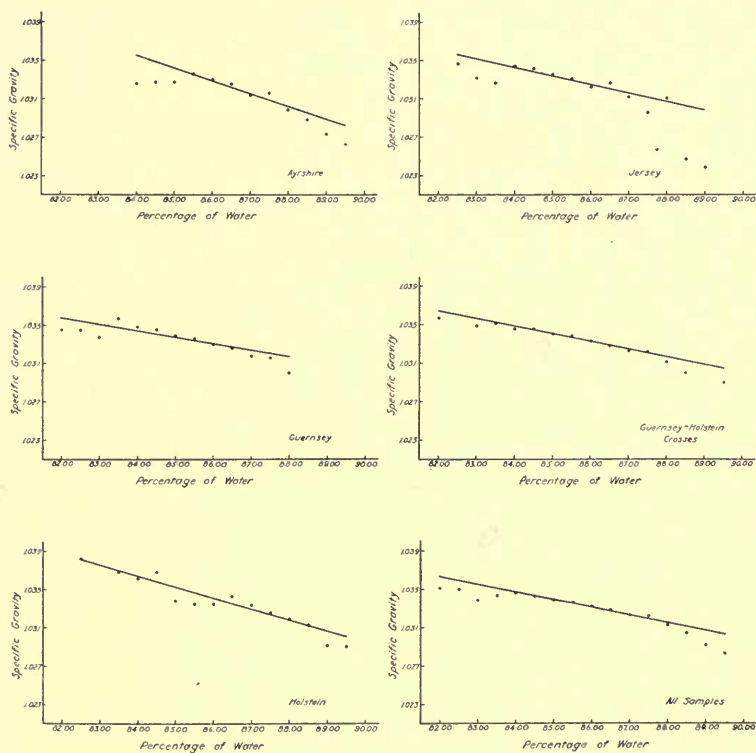


FIG. 54.—REGRESSIONS OF SPECIFIC GRAVITY ON WATER. EQUATIONS NO. 53.

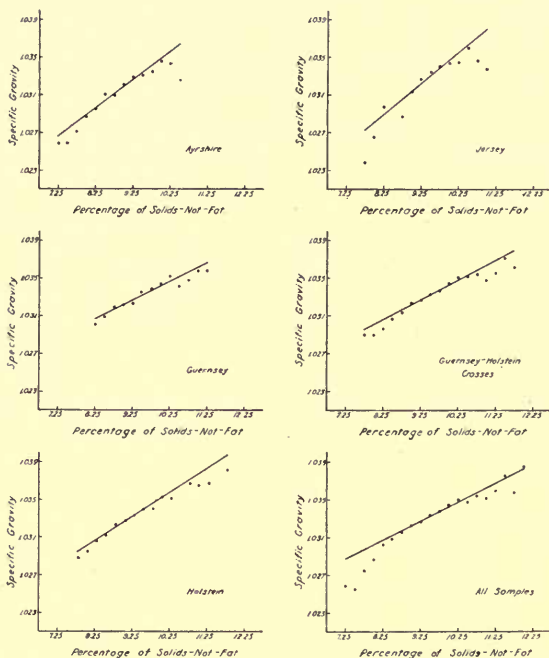


FIG. 55.—REGRESSIONS OF SPECIFIC GRAVITY ON SOLIDS-NOT-FAT. EQUATIONS No. 54.

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